

# **eDVR Installation Guide**

**MD3200M**

**(v 1.0)**



### **Caution**

Since this device is operation purpose and registered as suitable electromagnetic waves, seller or user should be cautious on this point. If the device is sold or purchased wrongly, it is required to replace as Home use.

### **FCC Compliance Statement**

**Caution** : Any changes or modifications in construction of this device which are not expressly approved the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE** : This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications, Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### **Warning**

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures

### **Warning**

1. In case of changing built-in lithium battery, it should be replaced as same or kindred one to prevent a danger of explosion. Since old batteries could be a factor of environment contamination, be cautious to treat them.
2. Do not throw the batteries to fire or heating. Neither short circuit or disassembly is prohibited.
3. Do not charge the batteries provided with Remote Controller

## **Important Notice**

1. Do not place heavy objects on the top of the eDVR
2. eDVR is for indoor use. It is not weatherproof. Use eDVR with referring to its environmental specifications (Temperature & Humidity). To clean the eDVR, gently wipe the outside with a clean dry cloth.
3. eDVR use AC power of 110V~240V. Be cautions not to cause electric damages to eDVR.
4. Be careful not to drop the eDVR. Physical shocks may harm the products including internal HDD. In addition, be sure the eDVR is secured after installation.
5. eDVR is made of metal. Therefore you can hurt human beings if you throw it to them or hit on them. When eDVR is installed, be cautious to locate on safe places where children are unreachable.
6. If eDVR does not operate properly, please contact the closest WEBGATE distributor for after sales service. Tempering or disassembling the product will void warranty.
7. Security surveillance laws may differ for each country. Therefore, please contact the local region first to avoid any surveillance law violations.

The contents of this manual can be modified in accordance with Firmware or Software upgrade. In the interest of continually improving products, approval & outlook can be modified without prior notice

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# OVERVIEW

## 1. What is MD3200M?

The eDVR MD3200M is a 16-analog channels network digital video recorder. Video, Audio, Text and Event-Logs are digitized and stored on two internal Hard-Drives

- 32 analog video channels
- 4 channel two-way audio recording & playback
- Max. 480ips<sup>1</sup> at 4CIF recording
- Real-time (60fps<sup>2</sup> for each channel) monitoring
- Built-in software multiplexer for all live monitoring channels (1/4/9/16/ch Mode on CCTV Monitor)
- Maximum 8TB storage capacity (IEEE 1394 for external HDD)
- ATM/POS transaction information text recording and search with corresponding video
- 16 sensor inputs and 4 relay outputs
- Built-in hardware motion detection with search function (22x18 or 22x15)
- Various efficient back-up methods (
- PTZ control via RS 232 and RS485
- User friendly Color Graphic OSD
- Static IP (DHCP, Dynamic IP) support for xDSL, Cable-Modem user
- IR Remote Controller (User controls PTZ with remote controller)
- Remote Management Software (Control Center Lite-D)
- Dual CCTV Monitor (1 Normal, 1 Spot) support
- Improvement in Video quality (Clearer Image, Night Noise filtering) function
- Digital Water Mark function

**<Note>**

Extension through NVS04, IEEE 1394b will be supported later.

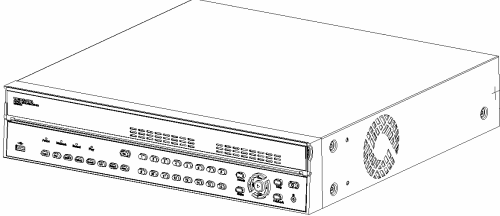
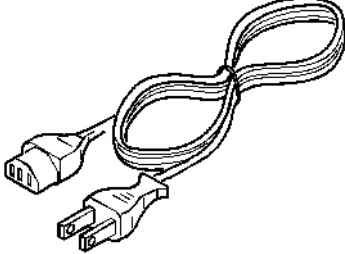
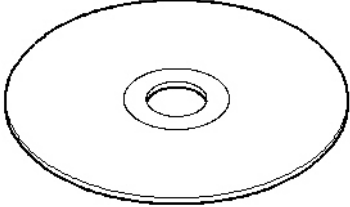
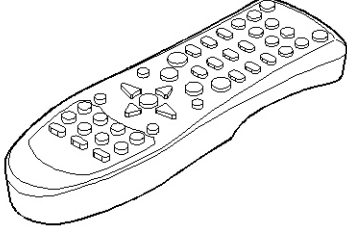
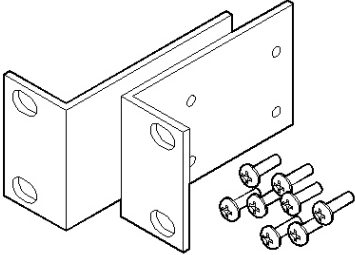

For the details, please contact to local distributor.

<sup>1</sup> ips = image per second

<sup>2</sup> fps = field per second

## 2. Supplied accessories

Unpack and check all the items as below;

<p>1. eDVR MD3200M (1EA)</p> 	<p>2. AC Power Cord (1EA)</p> 
<p>3. CD (Including Software) (1EA)</p> 	<p>4. Remote Controller (1EA)</p> 
<p>5. RACK FIXING KIT (1SET)</p> 	<p>6. R-HDD screw (8EA)</p> 

**<Note>**

**Attention for the system without HDD installed**

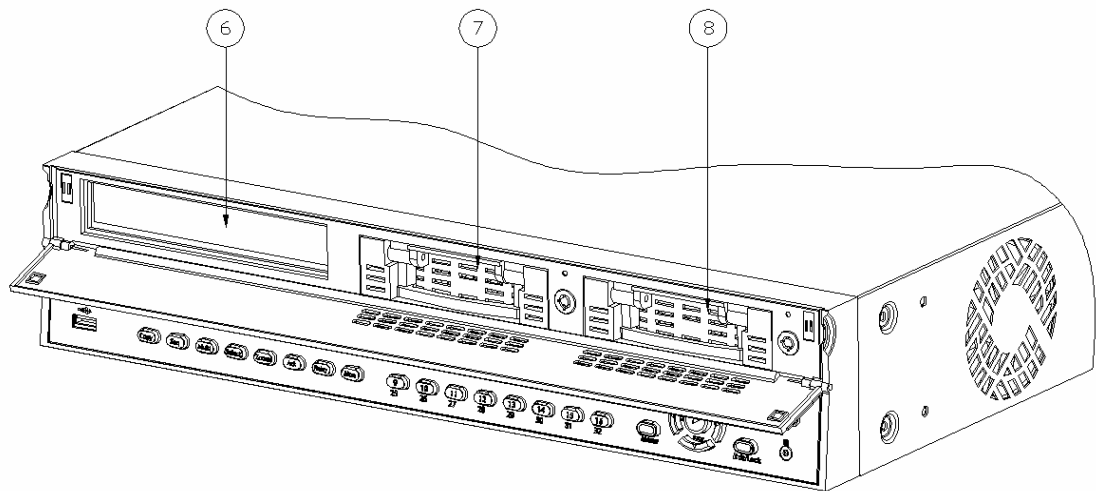
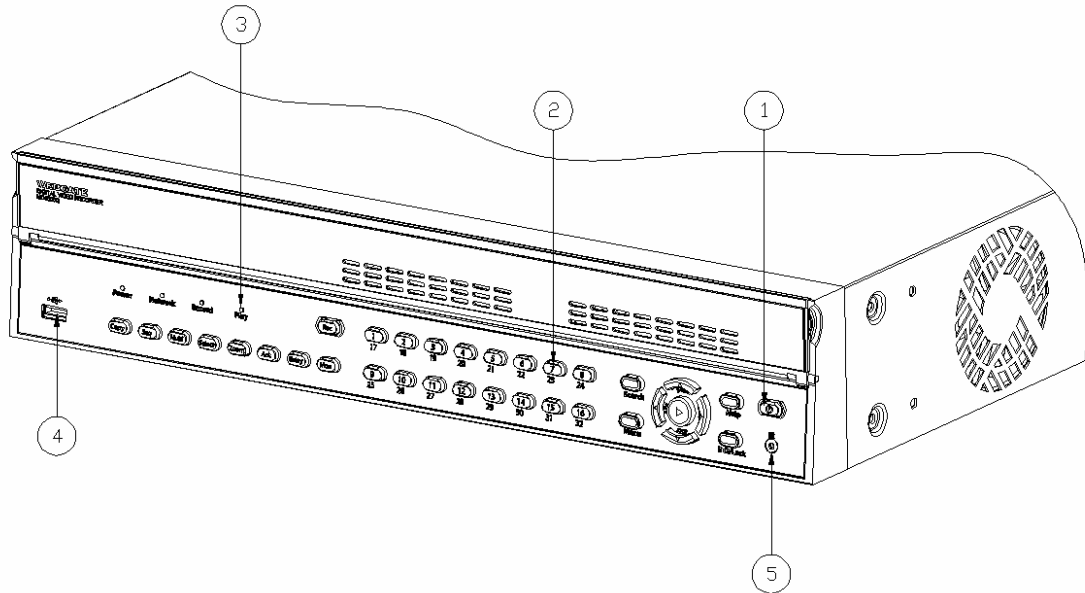
In case of system without HDD, HDD only can only be installed in R-HDD(Removable Hard disk rack).

For the internal installation of HDD additionally, For the details, please contact to local distributor.



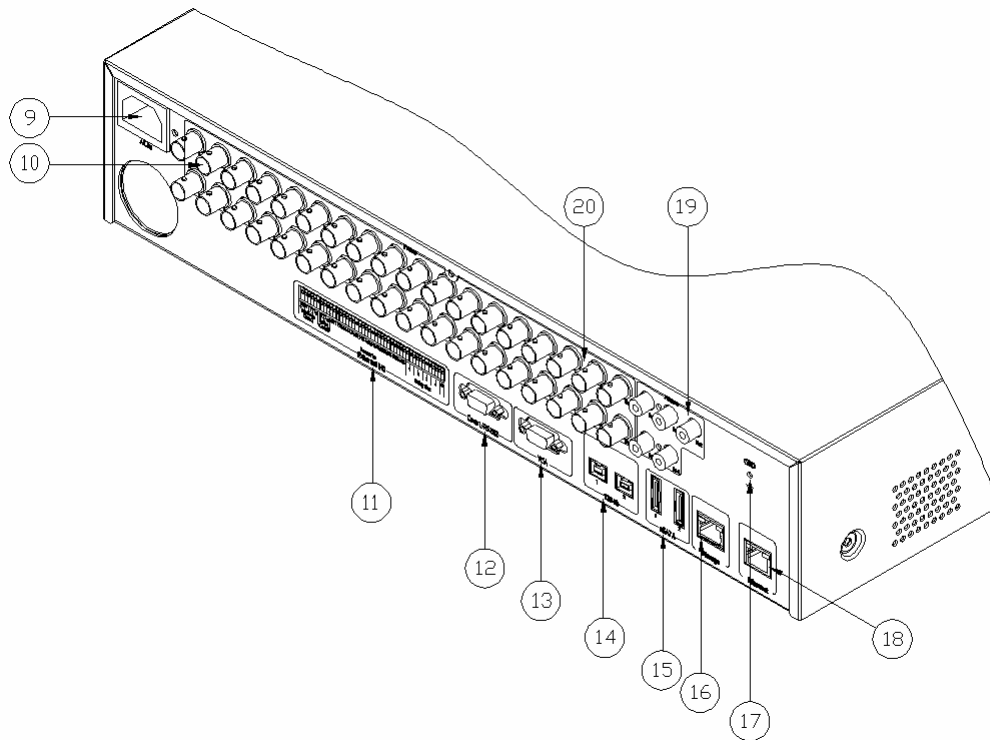
### 3. Description & Function

#### MD3200M front



- (1) Power switch
- (2) Function buttons
- (3) LED
- (4) USB port
- (5) Remote controller receiver
- (6) CD/DVD-RW ROM
- (7),(8) Built-in Hard Disk Rack

## MD3200M rear



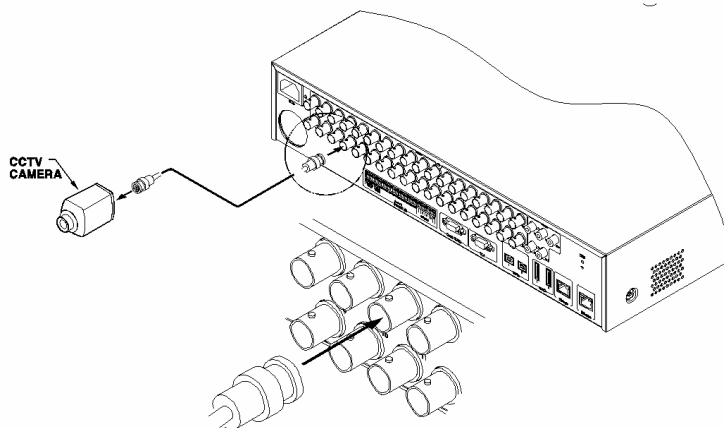
- (9) AC power connector
- (10) BNC connector for video input
- (11) Terminal block for sensor, relay, and serial input/output
- (12) RS232 connector
- (13) VGA connector
- (14) IEEE1394 connector
- (15) eSATA connector
- (16) Network Storage connector(RJ45)
- (17) GND
- (18) Ethernet connector
- (19) Audio input/ output connector
- (20) BNC connector for monitor output

# INSTALLATION AND CONNECTION

## 4. Connecting & Running

### 4.1. Connecting camera

- (1) Connect CCTV camera to MD3200M with BNC cable as below.



#### <Note>

1. The video type for all channels should be either NTSC or PAL, not be combined both.
2. MD3200M sets video signal's impedance ( $75\Omega$ ) automatically.  
75-Ohm termination register is always connected on video input, and can't be removed. So MD3200M's video input must be a terminal of the connection.
3. Video Type(NTSC/PAL) should be changed after opeting MD3200M. The order of camera recognition follows Ch1 camera through Ch32 camera and 1<sup>st</sup> recognized camera type leads other camera type.

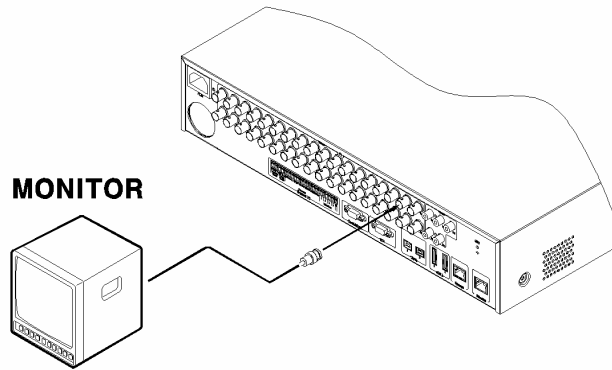
### 4.2. Connecting monitor

- (1) Connect CCTV monitor to MD3200M with BNC cable as shown below;

**<Note>**

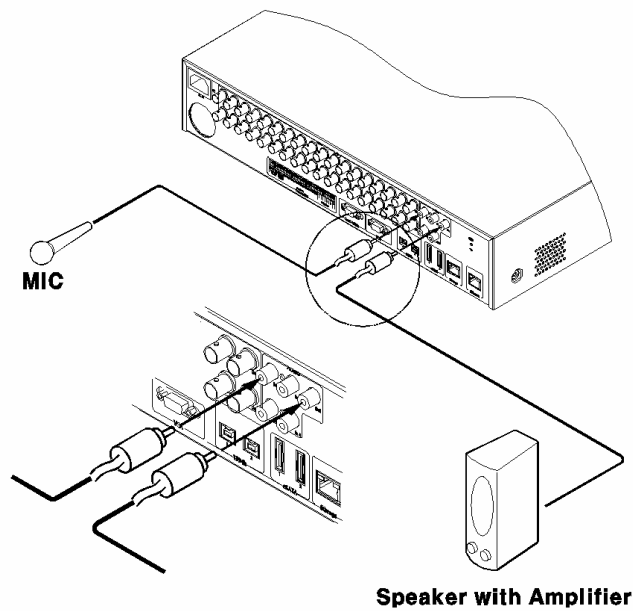
Monitor out put of MD3200M is separated as A(Normal) and B(Spot). Connect to Monitor A if only one Monitor is used .

Monitor output is fixed depend on channel. Video Out 1, 3 is output channel 1 to 16, and Video 2, 4 is output channel 17~32.



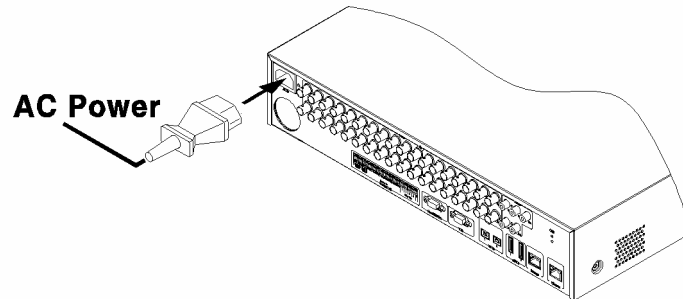
### 4.3. Connecting Audio

(1) Connect auto signal to MD3200M with using RCA cable.



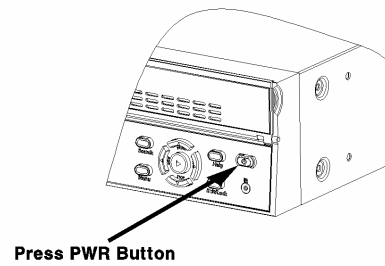
#### 4.4. Supplying power

- (1) Connect power cable as shown below



**<Note>**

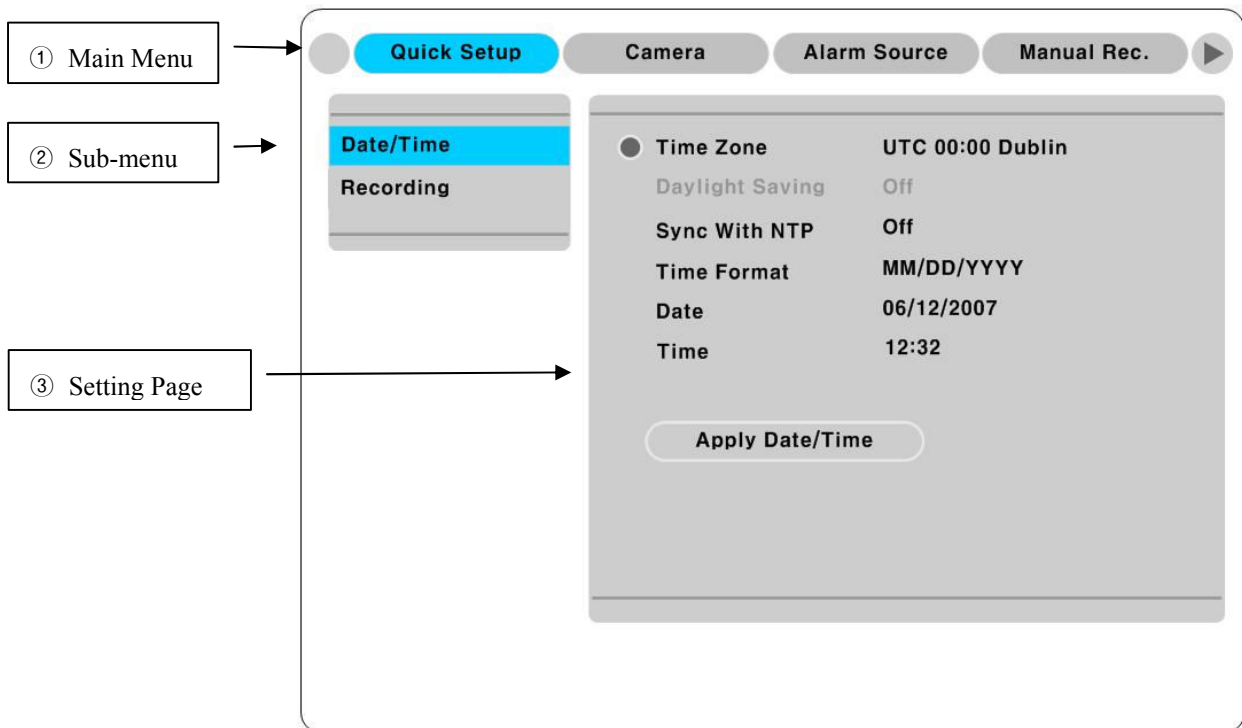
1. When supplying power, MD3200M starts booting automatically.
2. In order to cut off power, press the power switch on MD3200M front during 4 seconds and enter admin password after appearing a pop window.
3. For supplying again, push the power switch.



## 5. Running OSD menu

### 5.1. Using menu

Press the [MENU] in keypad of front to open the OSD Configuration Menu



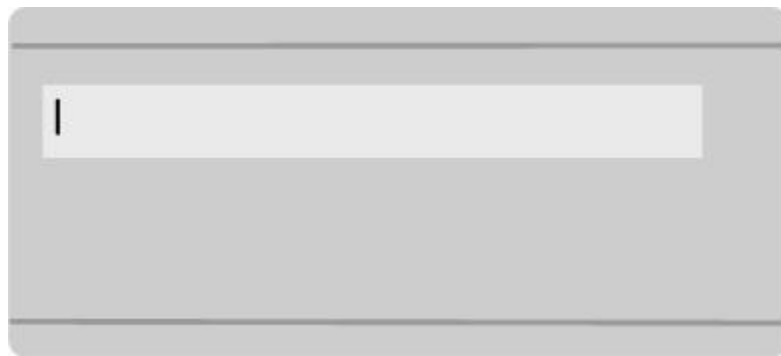
(1) **Main Menu** : The selected tab is shown in blue and the related sub-menu will be shown below the tab. To move to the previous/next Main Menu tab, use the [◀/▶] arrow buttons. To move to a sub-menu, press the [▷]/[▼] arrow buttons.

(2) **Sub-menu** : The selected sub-menu is shown in blue and the related setting will be shown to the right of the sub-menu. Use the [▲/▼] arrow buttons to move within the sub-menu list. To move to the setting page, press [▷] button. To exit the setting page, press the [EXIT] button.

(3) **Setting Page** : The selected sub-menu is shown as a circle on the left side of the name and gray color for setting value. To move within each page, use the [◀/▶] or [▲/▼] arrow buttons. Press the [▷] button to change the value of a setting. When setting value is a word, a dialogue box to edit the word will open. When setting value is a number, it should be set with using [◀/▶] or [▲/▼] arrow buttons. After the value is set, press the [EXIT] button. To exit the Setting page, press the [EXIT] button.

## 5.2. Dialogue box to edit a word

There are two methods to input a word..



### (1) Entering words

Move pressing [▶] arrow button to enter next word until the word is looking for is shown using [▲/▼] arrow buttons. In case of spacing words, press [▶] to move one space and enter the word. To exit the Dialogue box, press the [▷] arrow button.

### (2) Available words range to use

1 2 3 4 5 6 7 8 9 0

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

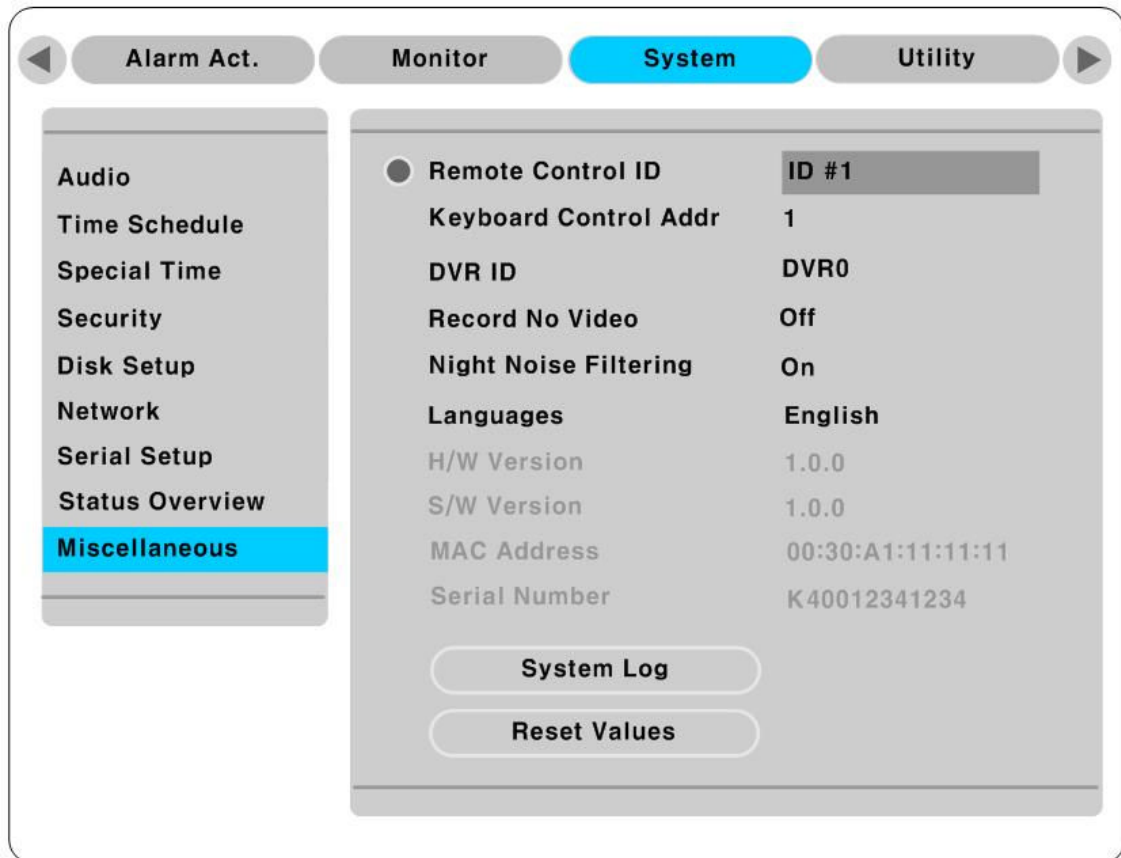
a b c d e f g h i j k l m n o p q r s t u v w x y z

( ) - . \$ # @

## 6. Setting remote controller

When controlling several eDVRs with one remote controller, set Remote Control ID as follows.

### 6.1. Setting ID of MD3200M



- (1) Press the [MENU] button
- (2) Select "System" with using [▶] button and press the [▷] or [▼] button
- (3) Select "Miscellaneous" from the sub-menu list using the button [▼] and press [▷] button.
- (4) Select "Remote Control ID" and press the [▷].
- (5) Select a value using the [◀/▶] buttons and press the [EXIT] button.
- (6) Press the [EXIT] button to exit the Settings Page and return to Monitor mode.

#### <Note> Remote Control ID

Up to 16 eDVRs can be controlled with a single remote controller.

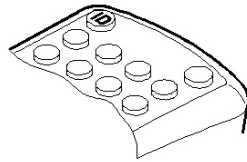
When not using remote controller, set the Remote Control ID as "Off".



## 6.2. Selecting MD3200M

If several eDVRs are set with unique ID numbers, they can be controlled with one remote controller. To select a specific eDVR (MD3200M), Keep pressing the ID button of remote controller until a buzzer sounds during 2 seconds.

Press repeatedly  
till to select eDVR  
that you want



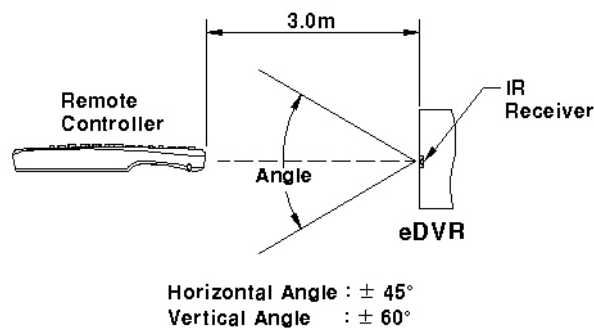
Remote Controller

Unselected		
Selected		
LED Blink One Time		

<Note>

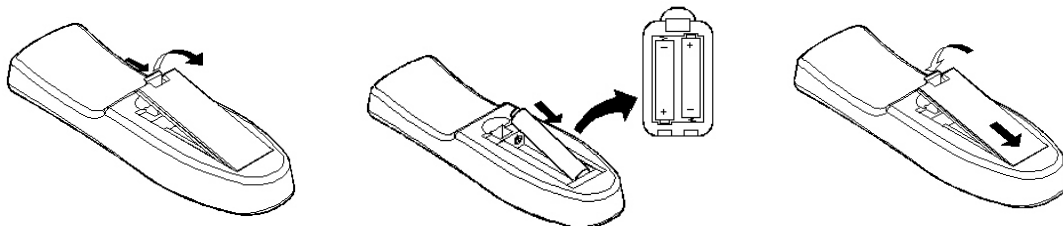
Because remote controller ID is sixteen, eDVR will correspond until pressing ID button sixteen times.

## 6.3. Operable range of remote controller



## 6.4. Loading the batteries into remote controller

Remote Controller requires two AAA-type batteries



1. Remove the battery cover

2. Taking care that the poles(+/-)  
Are correctly positioned.

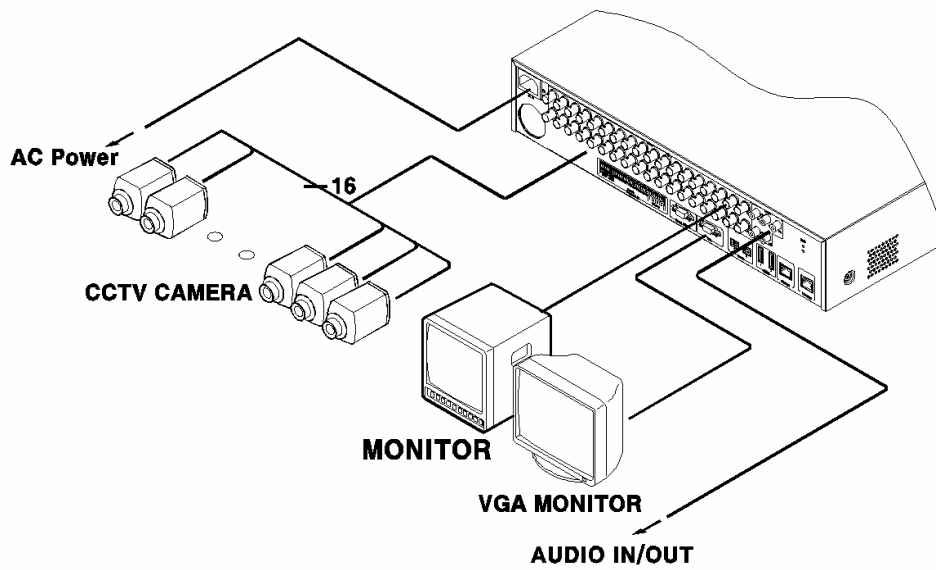
3. Replace the battery cover

<Note>

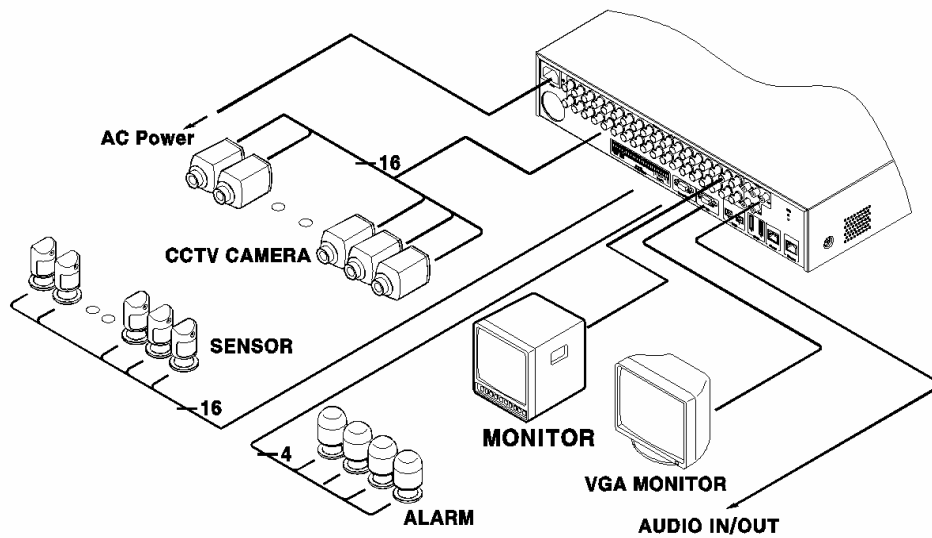
Batteries are not included as a packing accessory

## 7. MD3200M configuration

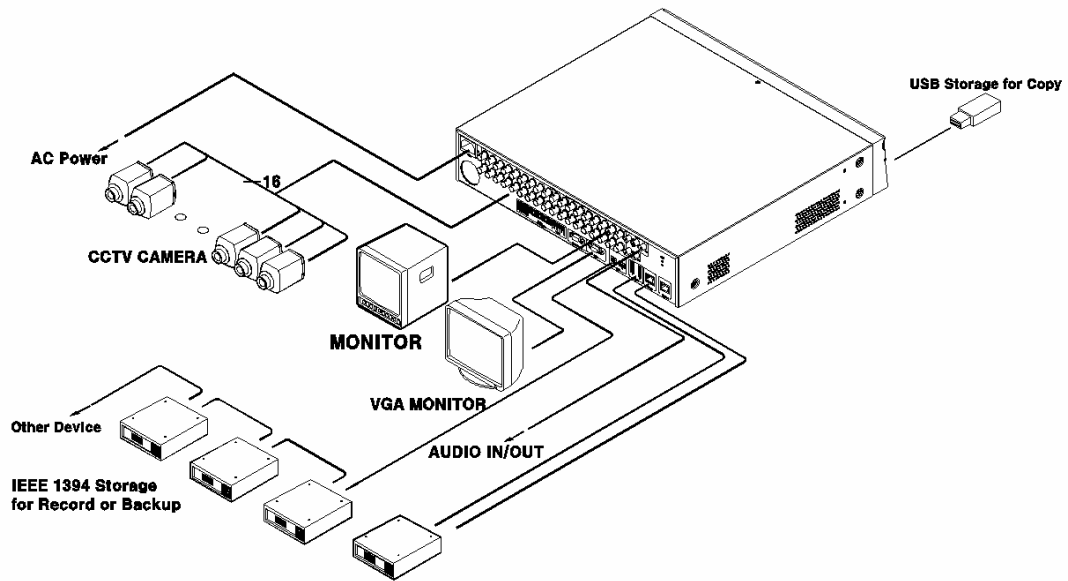
### 7.1. Basic configuration



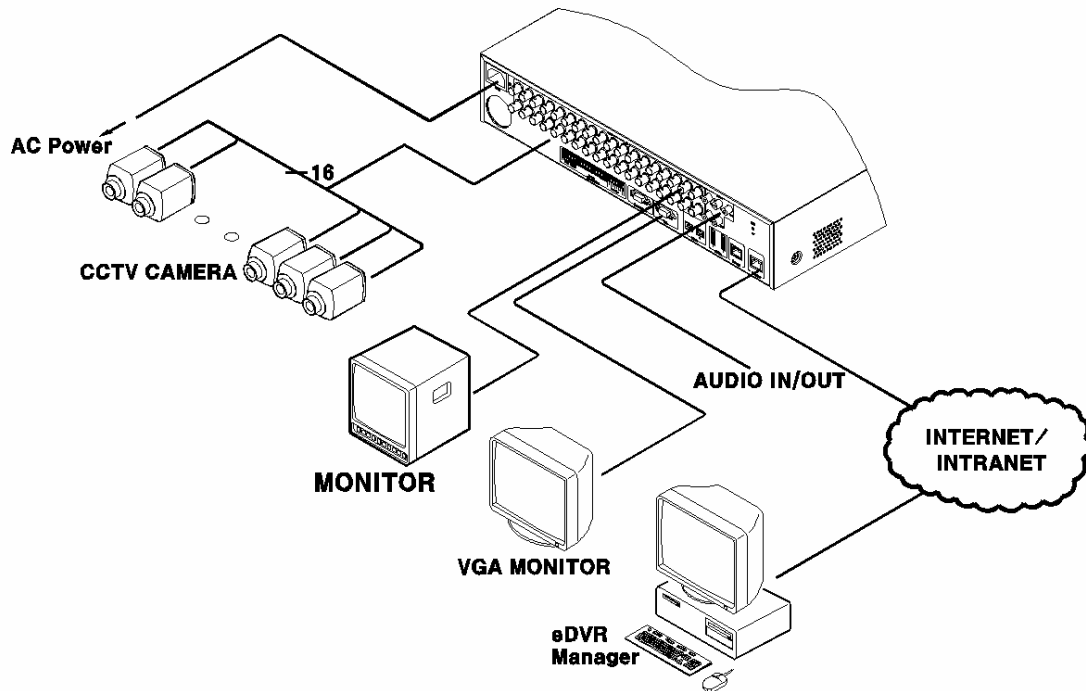
### 7.2. Advanced configuration



### 7.3. External storage & Back up configuration



### 7.4. Internet/ Intranet configuration



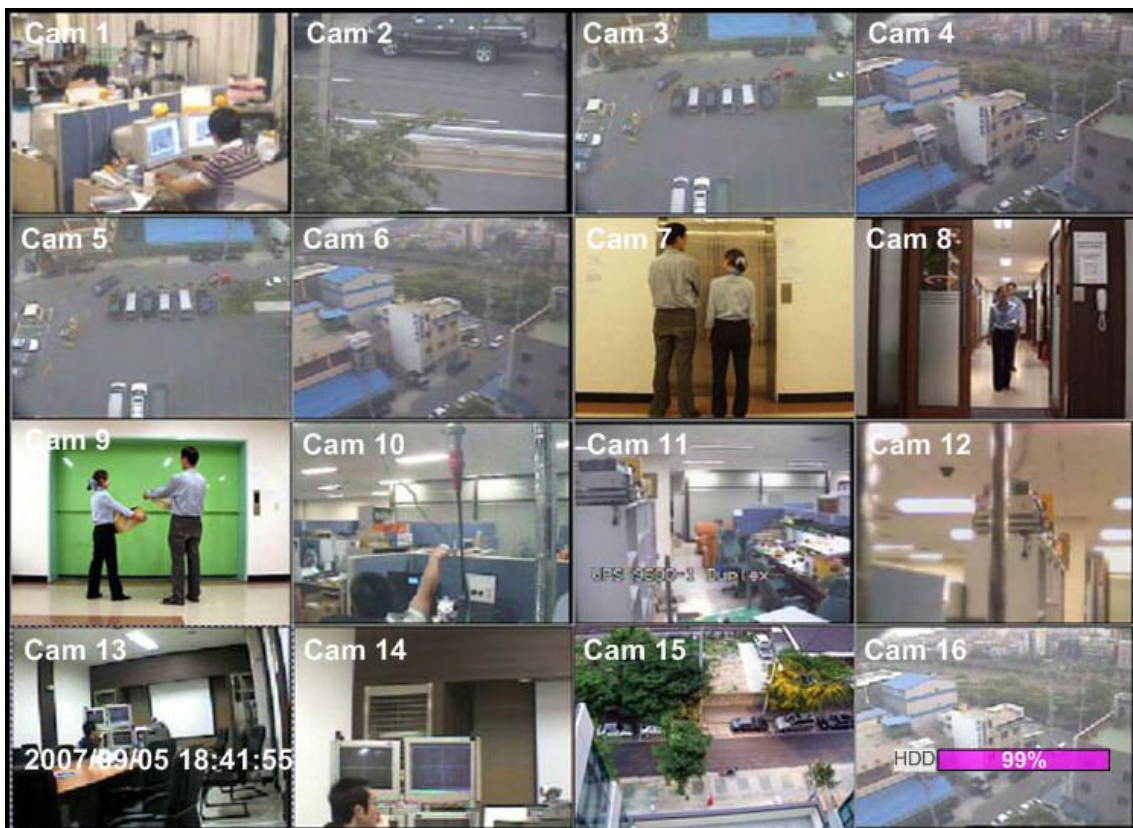
## 8. eDVR MD3200M basic setting

### 8.1. Viewing Image

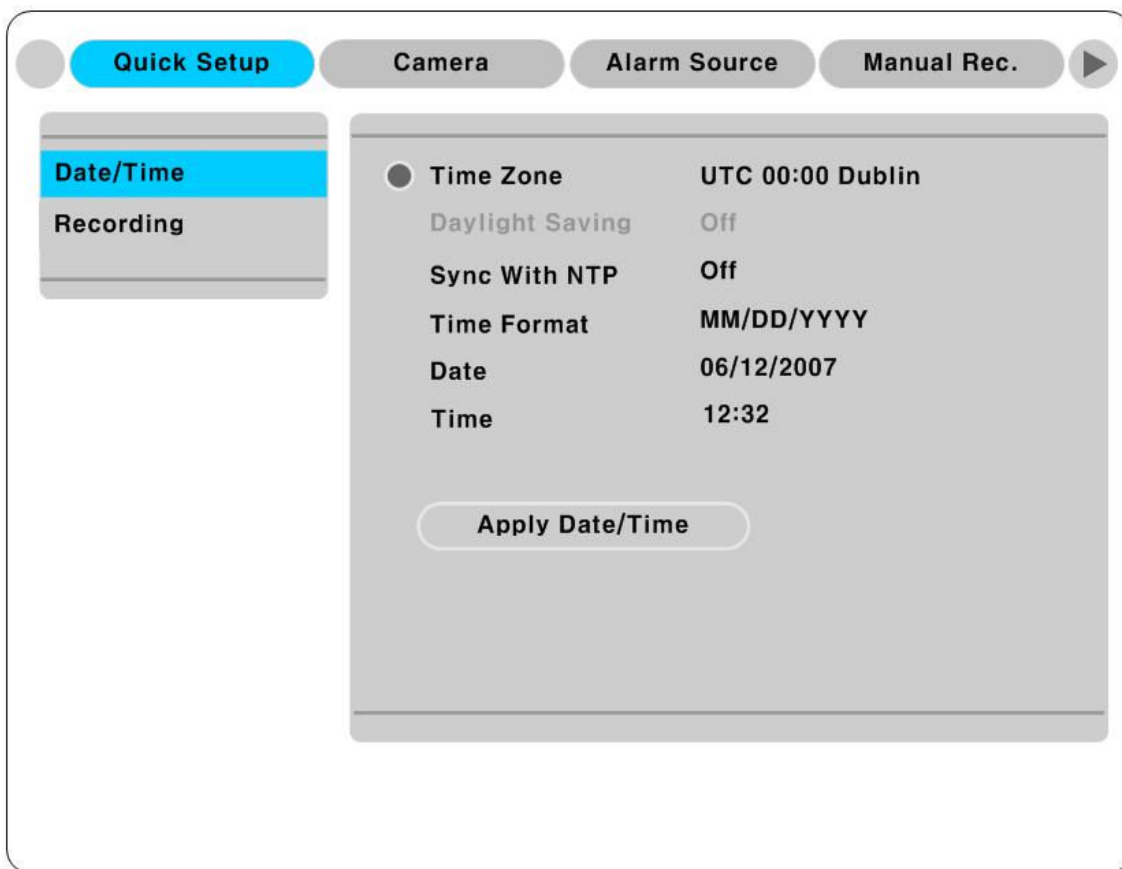
When power is on, MD3200M starts automatically and images are displayed in basic 16ch-split screen after the booting.

**<Note>**

If user password is set, a prompt for entering the password will appear. Factory default is reserved as not responding key pad on eDVR front (It is not set from factory default)



## 8.2. Setting Date & Time



- (1) Press [MENU] button and select “Quick Setup” tab.
- (2) Select “Date/Time” using the [▷] or [▼] and press [EXIT] button.

### 8.2.1. Time Zone

- (1) Select “Time Zone” using the [◀/▶] or [▲/▼] button and press [▷] to configure.
- (2) Select Time Zone using the [◀/▶] button and press [EXIT].

### 8.2.2. Daylight Saving

- (1) Daylight Saving Time is only activated for Time Zone that uses Daylight Savings.
- (2) Select “Daylight Saving” using the [◀/▶] or [▲/▼] button and press [▷] button.
- (3) [◀/▶] Select On/Off using the [◀/▶] and press [EXIT].

### 8.2.3. Sync with NTP

In order to synchronize time with NTP (Network Time Protocol) server, select “on”.

- (1) Select “Sync with NTP” using the [◀/▶] or [▲/▼] button and press [▷] button.
- (2) Select On/Off using the [◀/▶] button and press the [EXIT] button.

#### 8.2.4. Time Format

- (1) Select “Time Format” using the [◀/▶] or [▲/▼] button and press [▷] button..
- (2) Two time formats are available; ‘DD/MM/YYYY’, ‘MM/DD/YYYY’, ‘YYYY/MM/DD’; Select a value using [▲/▼] buttons and press the [EXIT] button when it is finished. (Factory default is set as ‘MM/DD/YYYY’)

#### 8.2.5. Date

- (1) Select “Date” using the [◀/▶] or the [▲/▼] buttons and press [▷]. Select ‘MM’, ‘DD’, ‘YYYY’ using the [◀/▶] buttons.
- (2) Press the [EXIT] button when setting is finished.

#### 8.2.6. Time

- (1) Select “Time” using the [◀/▶] or [▲/▼] buttons and press [▷].
- (2) Select ‘HH’, ‘MM’ using the [◀/▶] buttons, and select the value using the [▲/▼] button.
- (3) Press the [EXIT] button when setting is finished.

#### 8.2.7. Apply Date/Time

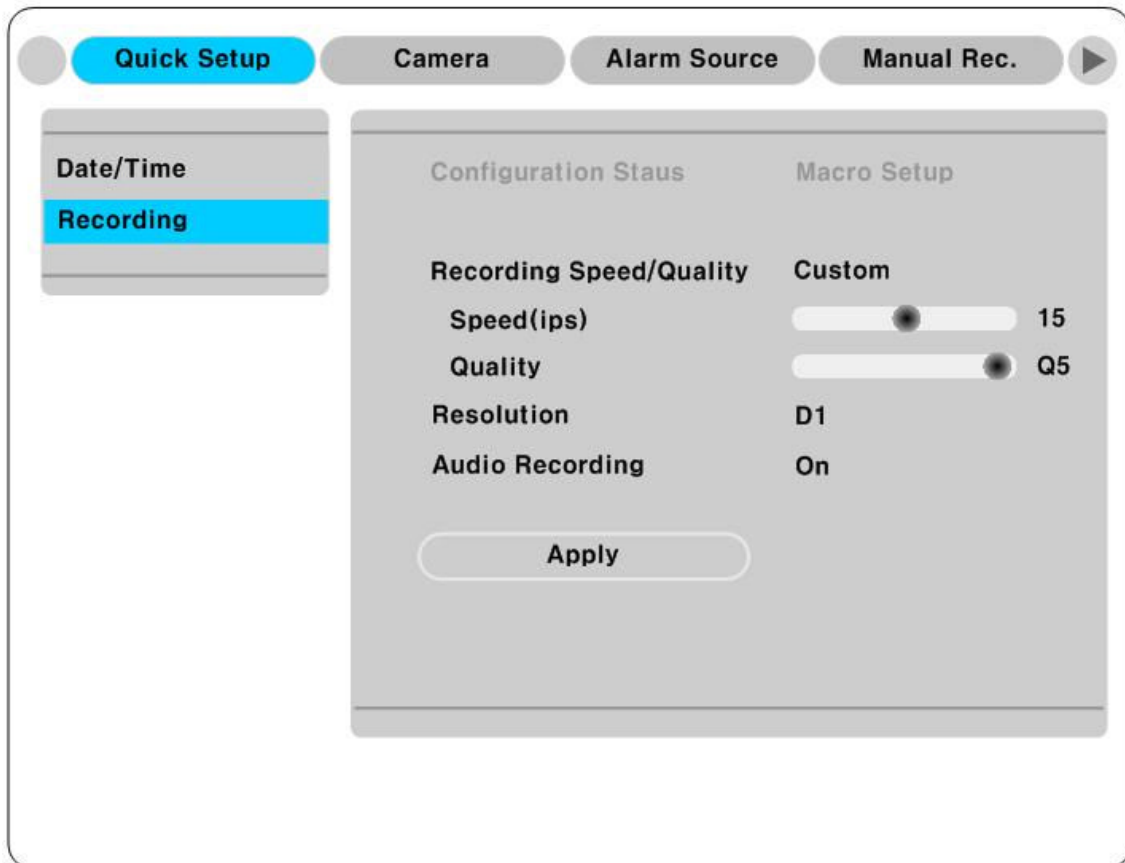
**Most setting values are applied automatically, when exiting from the related menu page. But “Date” & “Time” setting are not applied automatically because they may critically affect the file system of the recorded HDD. To apply Date/ Time settings confirm with [Apply Date/ Time] buttons.**

- (1) Select “Apply Date/time” using the [◀/▶] or [▲/▼] buttons and press [▷]. A warning message will be appeared will be appeared as below;
- (2) Select “OK” using [◀/▶] or [▲/▼] buttons and press [ENTER] button. To cancel, press the [EXIT] button.



### 8.3. Setting recording condition

Recording conditions under the “Quick Setup” menu tab apply the same values to all analog channels 1~16. All settings are applied for 24 hours/ day regardless of the value set for “Time Schedule” or “Alarm Rec.”



- (1) Press [MENU] button and select “Quick Setup” when OSD menu is shown.
- (2) Move to sub-menu by pressing [▷] or [▼] button.
- (3) Select “Recording” using the [▲/▼] buttons and press [▷].

#### 8.3.1. Configuration Status

Displays the recording configuration status. When setting through the “Quick Setup” menu, “Quick Setup” will be shown. When setting up through “Normal Rec,” or “Alarm Rec,” “Custom Setup” will be shown.

<Note>

Only when normal recording of all channels are same, it is marked as ‘Macro Setup’.

### 8.3.2. Recording Speed/Quality

- (1) Select “Recording Speed/ Quality using [▲/▼] buttons and press [▷].
- (2) Select a value using the[◀/▶] button. Press the [EXIT] button when it is finished.

#### <Note> Recording Speed/Quality means

Low : Speed=7.5(6)ips and Quality=Q3 and Resolution=CIF

Standard. : Speed=15(12.5)ips and Quality=Q3 and Resolution=Half

High : Speed=30(25)ips and Quality=Q5 and Resolution=Half

Custom : Speed and Quality = Manually defined by user

### 8.3.3. Speed(ips)

When “Recording Speed/Quality” is set as” Custom”, values can be set manually.

- (1) Select “Speed” using the [▲/▼] button and press [▷].
- (2) Select a value using the [◀/▶] button. Press the [EXIT] button when it is finished.

### 8.3.4. Quality

When “Recording Speed/Quality” is set as “Custom”, values can be set normally.

- (1) Select “Quality” using the[▲/▼] button and press [▷].
- (2) Select a value using the [◀/▶] button. Press [EXIT] button when it is finished.

### 8.3.5. Audio Recording

- (1) Select “Audio Recording” using the[▲/▼] buttons and press [▷].
- (2) Select a value using the[◀/▶] button and press [EXIT] button when it is finished.

### 8.3.6. Alarm Recording

- (1) Select “Alarm Recording” using the[▲/▼] buttons and press [▷].
- (2) Select a value using the[◀/▶] button and press [EXIT] button when it is finished.

### 8.3.7. Apply

- (1) Select “Apply” using [▲/▼] buttons and press [▷].
- (2) Setting values are applied and the previous menu will be displayed.

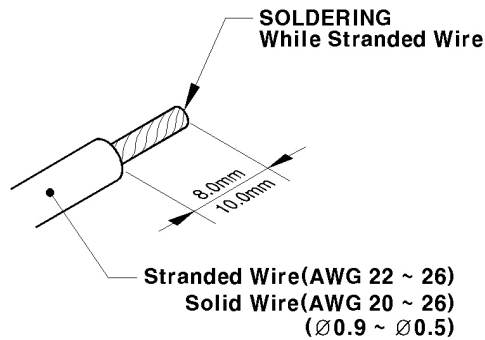


## 9. Connecting and configuring DIO ports

### <Note> Wire Handling

#### Trimming Wire

When connecting a wire to a terminal block, follow the instructions below. Note the different types of wire that can be used.

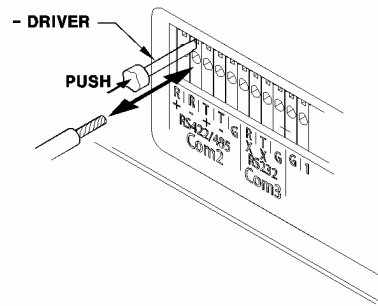


Standard Wire : Peel off the wiring, cover 8~10mm and solder it. Wire gage should be AWG 22~26.

Solid Wire : Peel off the wiring cover 8~10mm and solder it. Wire gage should be AWG 20~26

#### Inserting & removing wire

To insert & remove wire in TERMINAL BLOCK, use a screwdriver in the diagram to the right.



### 9.1. Connecting and configuring sensor

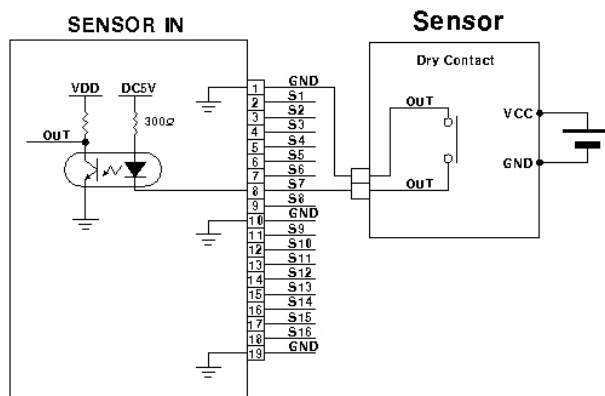
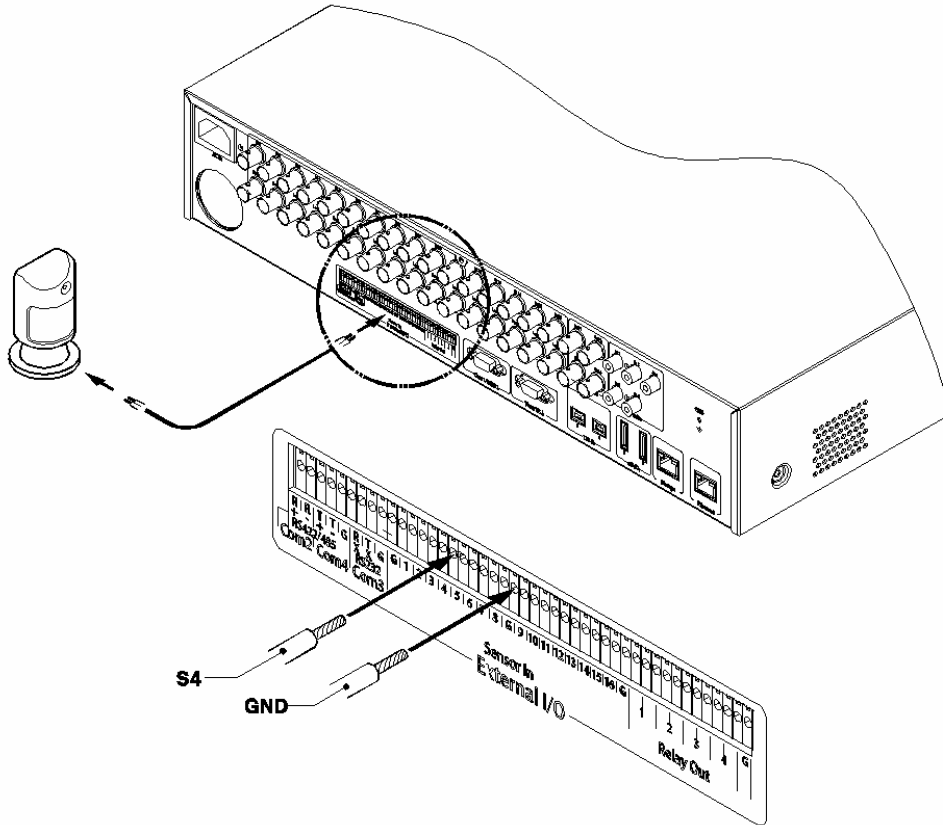
#### 9.1.1. Specification

In order to run sensor input of eDVR MD3200 Series normally, the following conditions are required.

Spec.	Input Ch.	16Ch Photo coupler inputs
	Input type	N.C (Normal Close)/ N.O. (Normal Open) type.
	Supported sensor	Dry contact sensor
	Connecting	Connecting the trimmed wire to terminal block
Performance	Available input pulse range	Min. 500ms
	Output current	Typical DC 12mA

### 9.1.2. Connecting sensor input

Connect S1 ~ S16 with referring to the followings. It shows to connect a dry contact (Please refer to “<Note> *Wire Handling*” on page 27). When connecting a non-dry contact type of sensor (e.g. Open collector output) please contact WEBGATE’s customer Support team.



### 9.1.3. Configuring sensor at OSD menu



- (1) Press the [Menu] button and select “Alarm Source”.
- (2) Press [▷] or [▼] button to move to Sub-Menu, select “Sensor” and press [▷].

#### 9.1.3.1. Global

Use when selecting all 16 sensors simultaneously, which can be selected as “Do not use”(Off). “Normal Open” (N.O), and “Normal Close” (N.C.).

- (1) Select a “Global” and set a type as Off, N.O. or N.C...
- (2) Press “Apply” to save a configuration

#### 9.1.3.2. Configuration

Use when selecting each 16 sensor individually.

- (1) Select a “Configuration” and press [▷].
- (2) Select a sensor (S1 ~ S16) and set a type.
- (3) Press [Exit] to out from OSD Menu.

<Note>

1. Configuration a sensor is to set On/Off usage and type.
2. Please refer to “Alarm Rec” for saving and “Alarm Act” for relay-out on the “*eDVR User’s Guide*”

## 9.2. Connecting & configuring relay out

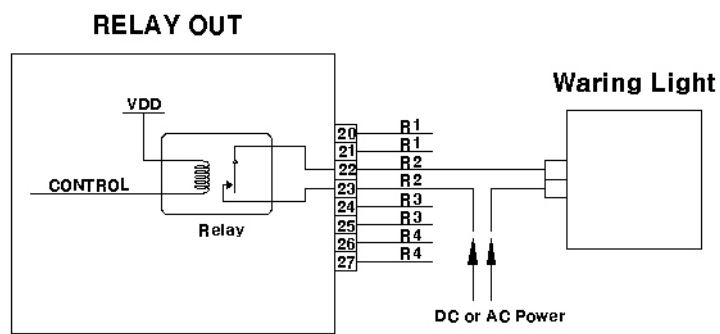
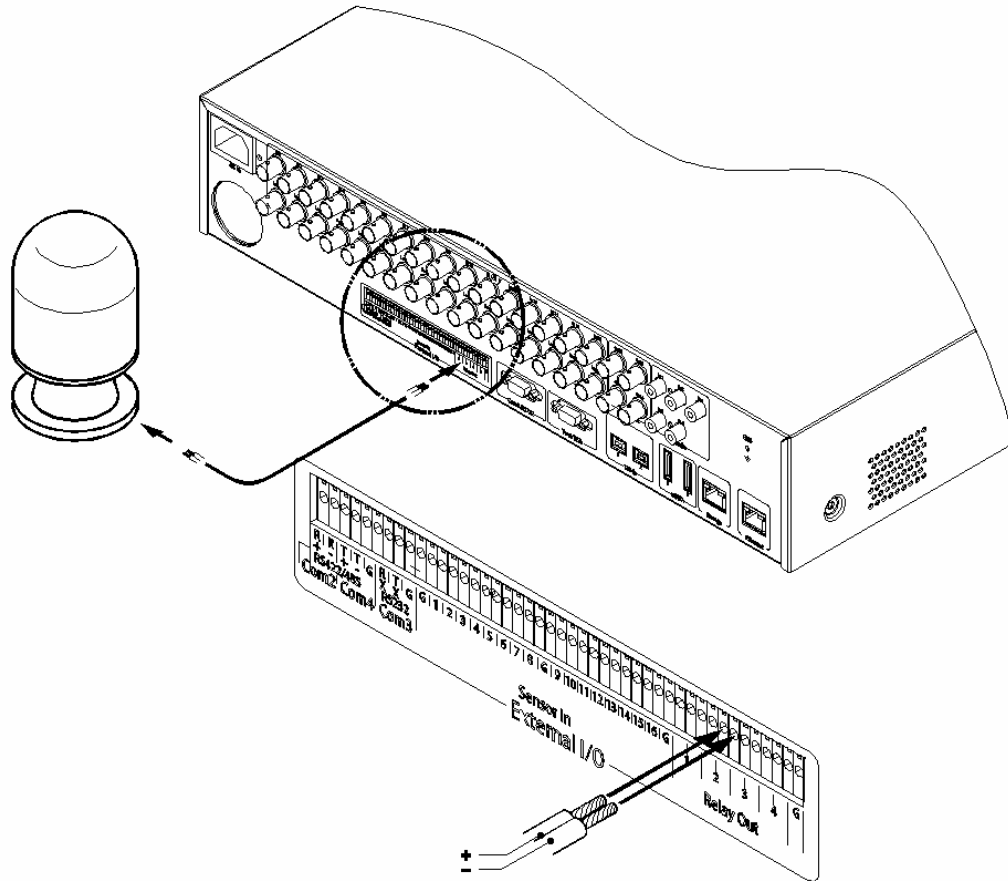
### 9.2.1. Specifications

In order to run relay output of eDVR MD3200M normally, the following conditions are required.

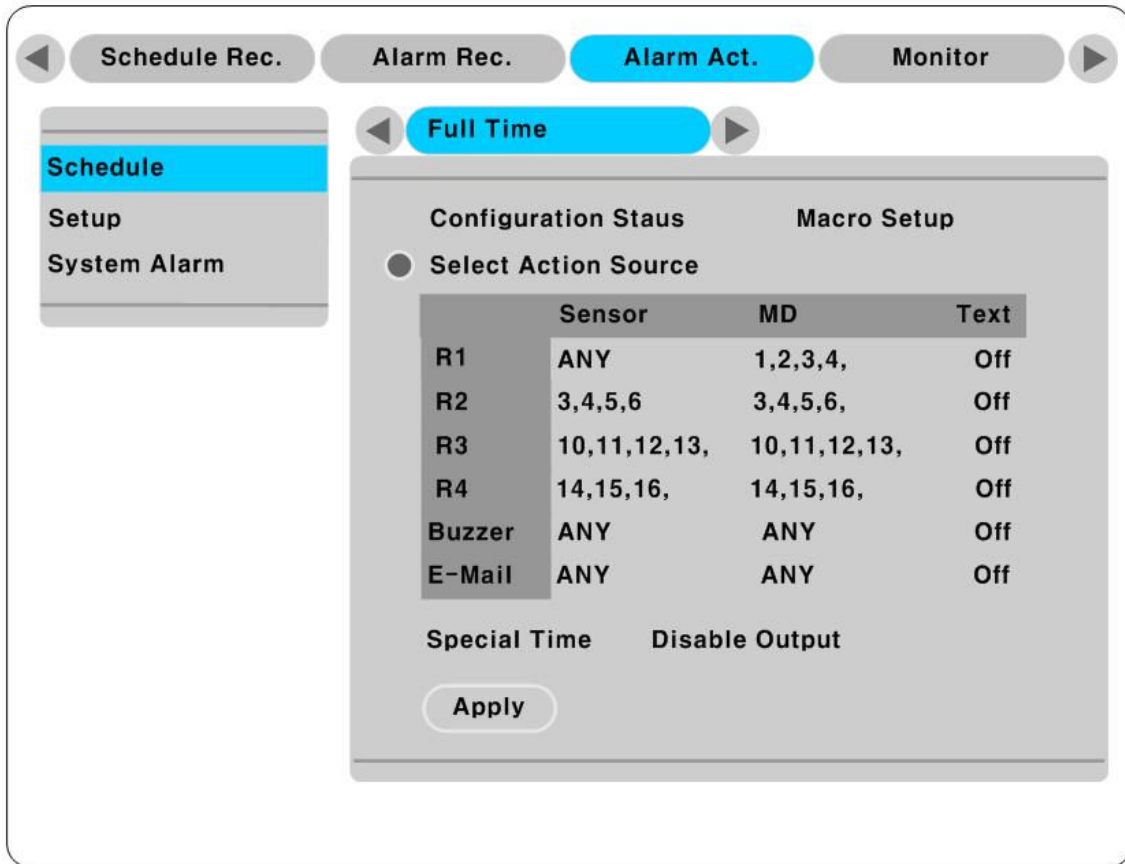
Spec.	Output Ch.	4Ch relay differential output
	Output type	Dry Contact
	Connecting type	Connect the trimmed wire to terminal block
정격	DC	24V DC, 1.25A, 30W
		125V DC, 0.24A, 30W
	AC	125V AC, 0.5A, 62.5VA
		250V AC, 0.25A, 62.5VA

### 9.2.2. Connecting relay out

Connect R1 ~ R4 with referring to the followings, It shows to connect a warning light. Please refer to “<Note> Wire Handling” on page 27.



### 9.2.3. Configuring relay out as OSD menu.



Relay can run by sensor or MD and its condition can be set differently according to schedule. When using the [Relay] button + [Number] button on the front panel or Control Center Lite-D S/W, relay can be operated from remote site.

**<Note>**

Please refer to the “*eDVR User’s Guide*” for more information.

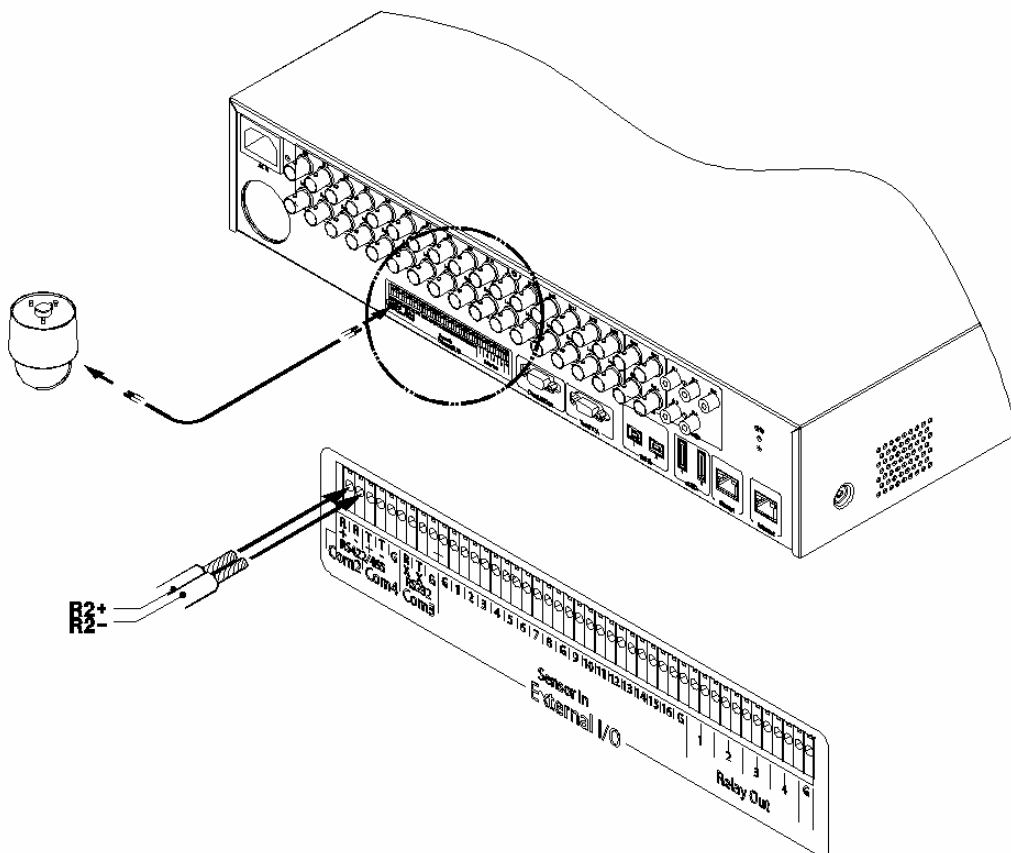
## 9.3. Connecting serial port

### 9.3.1. Configuring serial ports for Pan/Tilt/Zoom

The MD3200 series have most major PTZ protocols already pre-programmed. Makes and models not supported can still be controlled using the Transparent Protocol. For a list of supported protocols, refer to the list on the OSD Configuration menu.

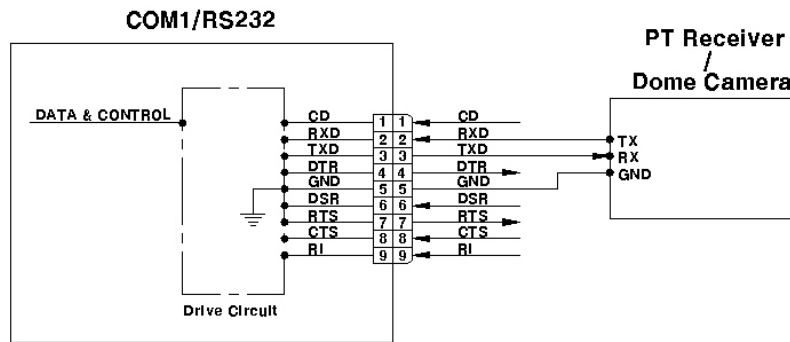
The following figure shows how to connect PTZ camera to RS485 (COM2). When using another serial port, connect it with referring to each connection diagram below.

Please refer to the “<Note> *Wire Handling*” on page 27.

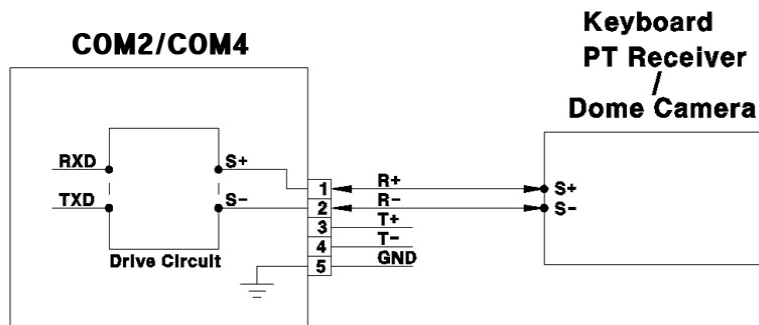


9.3.2. Diagram of serial ports

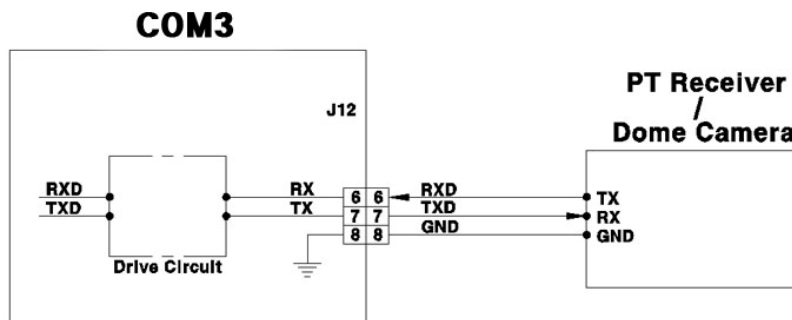
9.3.2.1. Diagram of COM1(RS232)



9.3.2.2. Diagram of COM2/COM4



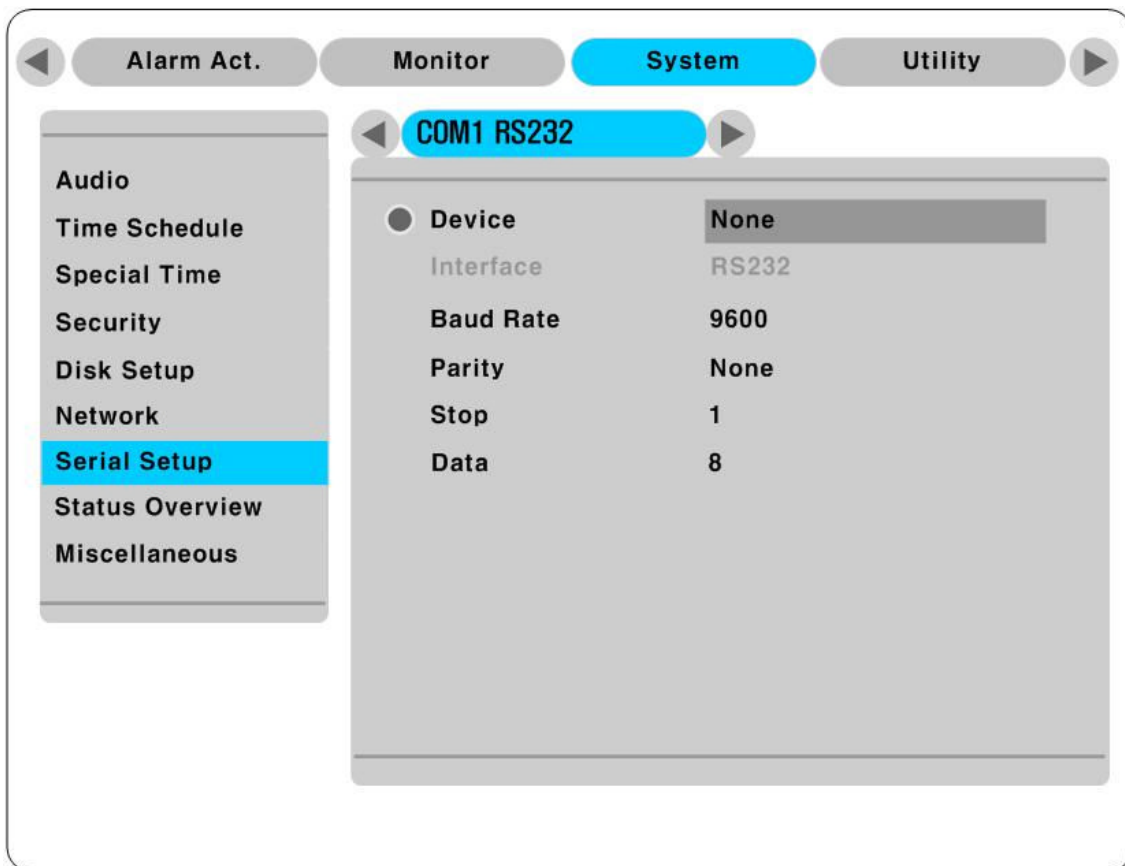
9.3.2.3. Diagram of COM3



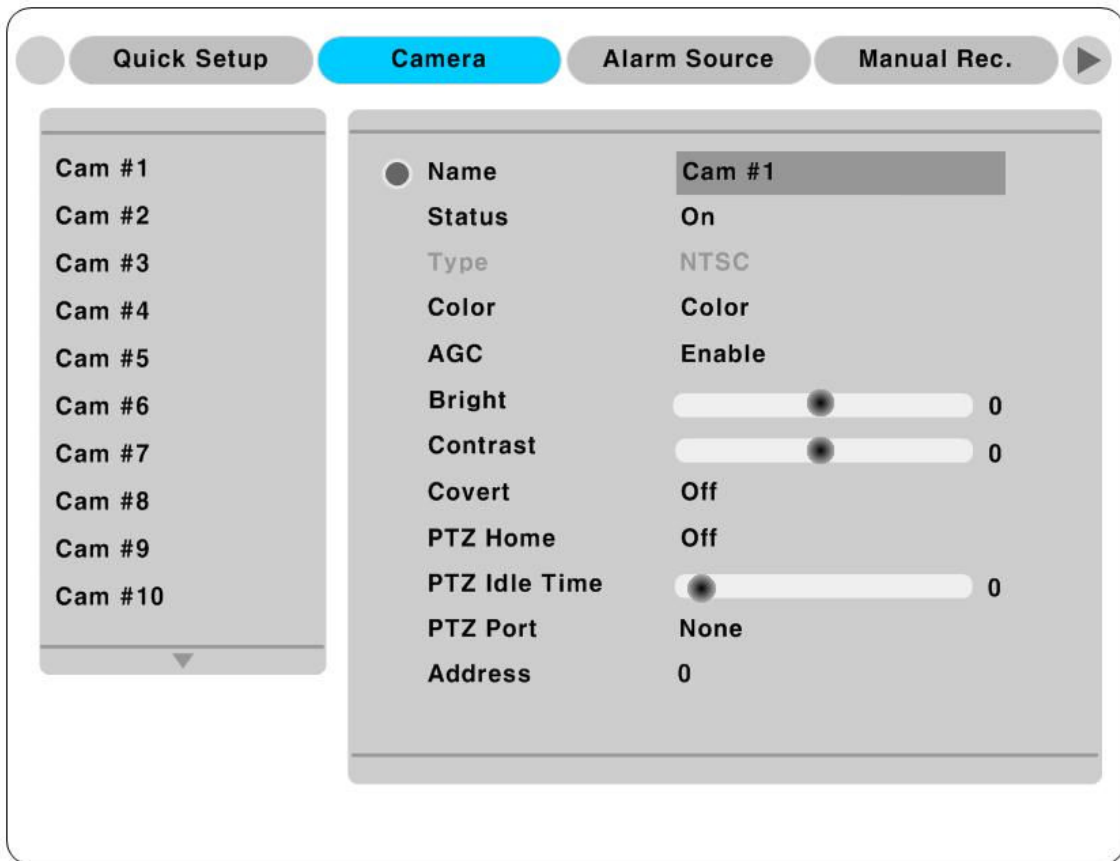


### 9.3.3. Configuring Serial

Configure PTZ COM ports and available models at “System/ Serial Setup” in MD3200 Series.



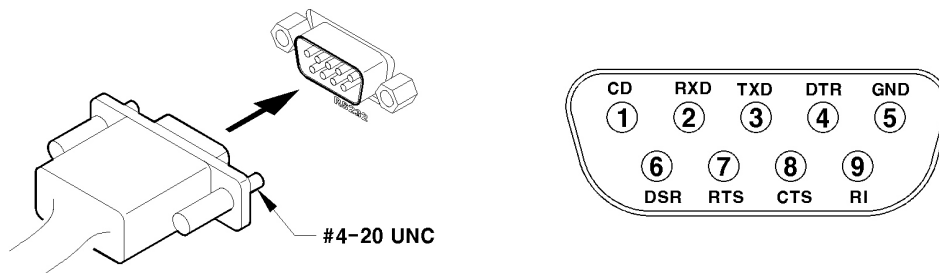
After completing serial setup, configure base address or port for each channel at “ Camera menu” tab. When connecting PTZ devices to several cameras, be sure base address matches address for the camera.



## 9.4. Connecting external device with serial port

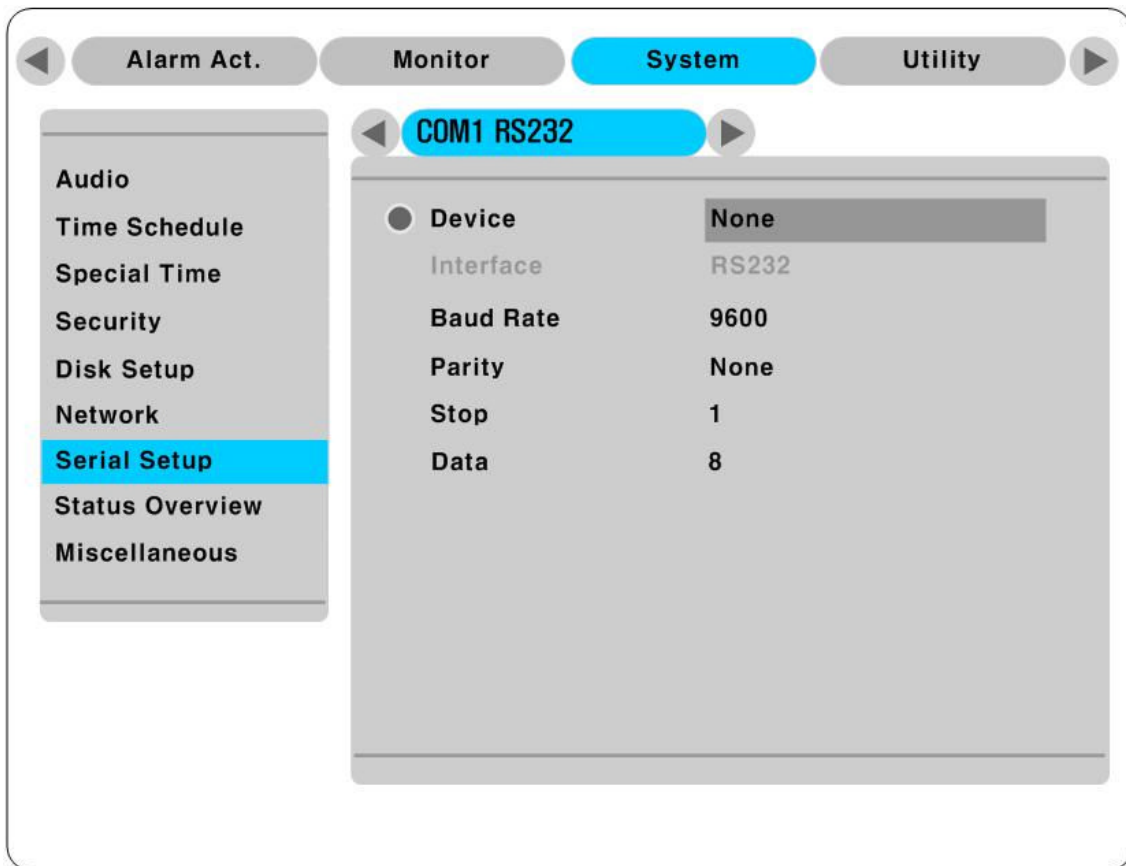
### 9.4.1. Connecting text input device (ATM / POS / Access Control)

The MD3200 Series can record text data received from POS/ATM through the COM/RS232 serial port.



Connect to COM1/RS232 (9Pin D-Sub) of MD3200M and configure the "Serial Setup" sub-menu under the "System" tab and "Text" sub-menu under the "Alarm Source" tab shown as above figure.

#### 9.4.2. Configuring serial setup (COM1) at OSD menu



- (1) Set the “System” in OSD menu and move to “Serial Setup” menu.
- (2) Select COM in “Serial Setup”, set Devices as “Text”.
- (3) Set Baud Rate/ Parity/ Stop bit with referring to manual of the connected external device.

### 9.4.3. Configuring text



- (1) Select the “Alarm Source” menu among OSD menus.
- (2) Select the “Text” and set each value.

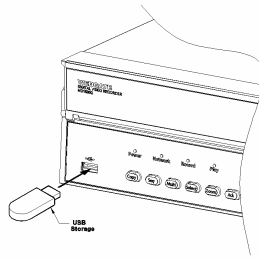
**<Note>**

Before installing any external device, consult with the local WEBGATE distributor. Some external devices may not be compatible with the eDVR.

### 9.5. Connecting USB device

USB port can be used to copy up to 1 minute of images to a USB Flash memory disk. When connecting USB Device, do not exceed the rated values of USB device as below;

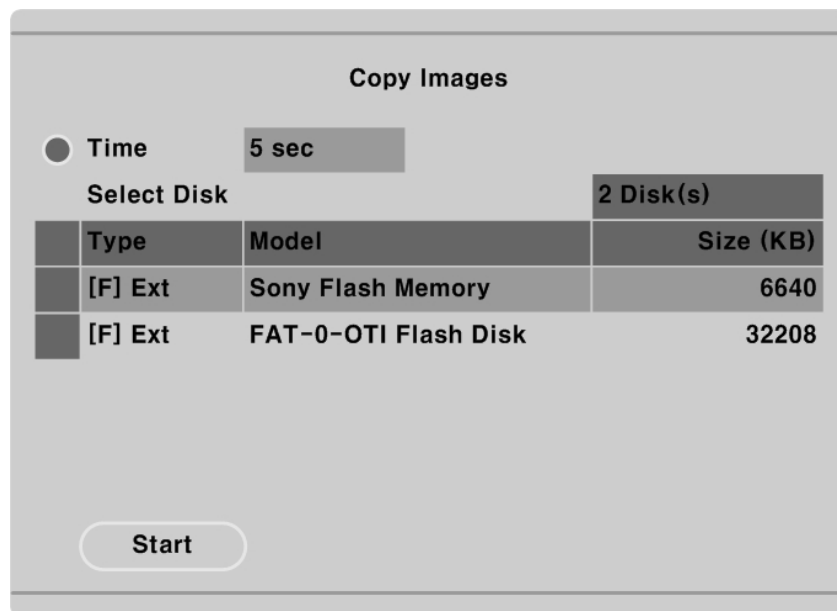
USB Spec.	Ver 1.1 (Max 12M bps)
Available Device	USB Memory Stick,
Output Voltage/Current	Max. 200mA per DC 5V/ Port



**<Note>**

The disk should be formatted with FAT32 type.

If properly connected the disk is recognized automatically as in the following picture. To copy images the process is as follows; Set copy range (up to 1 minute) → Select drive → Copy



**<Note>**

1. USB Flash products that required a Windows program to operate may not be recognized by the eDVR
2. For more information about copy function, please refer to the *“eDVR User’s Guide”*

## 10. Connecting External Storage

**<Note>**

Extension through NVS04, IEEE 1394b will be supported later.  
For the details, please contact to local distributor.

### 10.1. IEEE1394 port

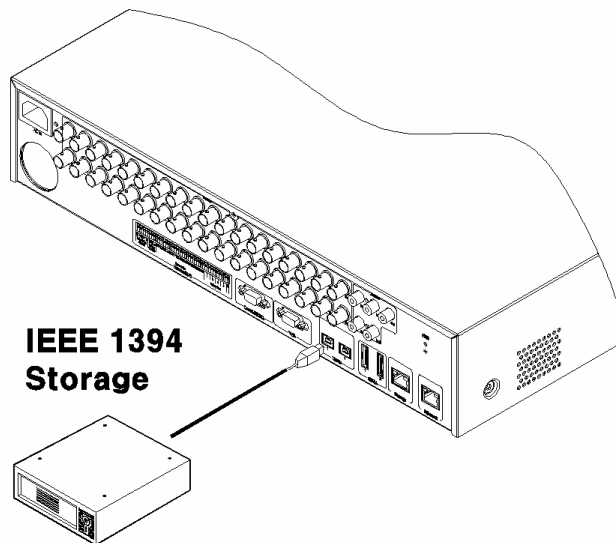
MD3200 Series have two IEEE 1394 ports (Rear: 2-ports) for external storage device interface.

**<Note>**

Some IEEE 1394 Bay may not be recognized by the MD3200 series. Before purchasing consult the local WEBGATE's local distributor.

### 10.2. Connecting IEEE1394 Device

When using FireWire supported external HDD, hard drive bays can be connected to 2 ports in the rear panel. The MD3200 series do not supply power to the hard drive bay; therefore only bays that use external power can be used.



**<Note>**

MD3200 Series detect external HDD, even though MD3200 series run. If not, it is recommended to connect as follows;

1. Power off MD3200M
2. Connect external HDD to IEEE1394 port.
3. Power on external device
4. Power on MD3200M

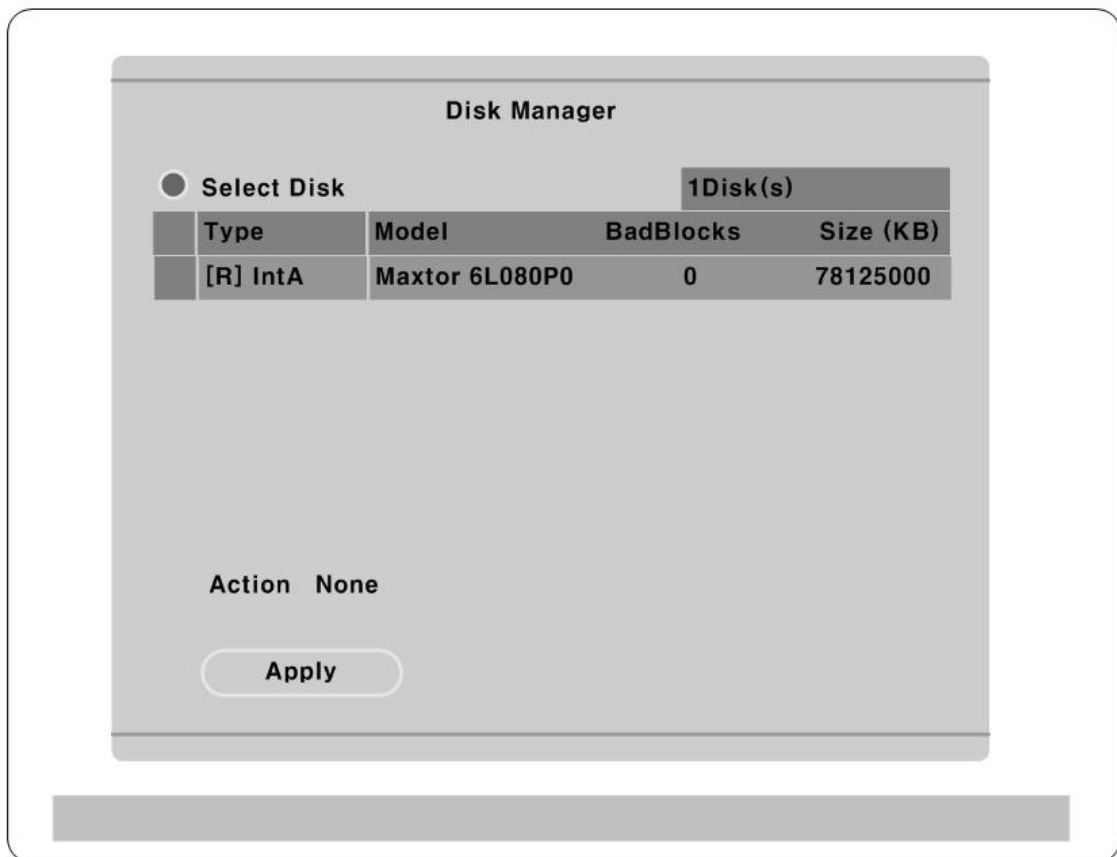
### 10.3. Available HDD

It is recommended to use following HDD models with the MD3200M. If a non-recommended HDD is used, WEBGATE Inc. will guarantee the warranty.

### 10.4. Registering & Formating HDD

“Disk Manager” will automatically run on start-up installing a HDD as below;

If “Disk Manager” deos not automatically run on start-up, make sure the HDD is properly installed.



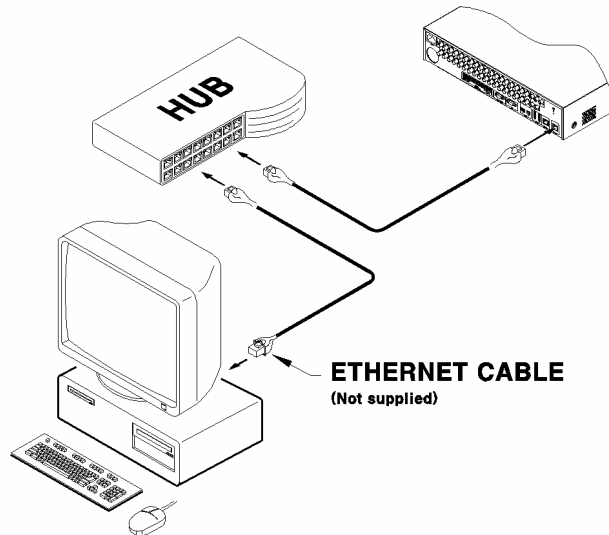
- (1) Press [▷] button marked at “Select Disk”.
- (2) Select new added HDD(indicated as “[F]”) using [▲/▼] button and press [EXIT].
- (3) Select “Action” using [▲/▼] button and press [▷].
- (4) Select “Add” using [◀/▶] button and press [EXIT].
- (5) Select “Apply” using [▲/▼] button and press [▷]. The HDD status is changed to “[\*]”.
- (6) Select “Action” using [▲/▼] button and press [▷].
- (7) Select “Format” using [◀/▶] button and press [EXIT] button.
- (8) Select “Apply” using [▲/▼] button and press [▷] button. The HDD status is changed to “[R]” after formatting.

(9) Shut down “Disk Manager” by pressing [EXIT] button.

## 11. Network monitoring & managing

MD3200M can be accessed, controlled, and managed from remote site using PC via Internet/ Intranet, which is same way as local access for controlling & monitoring features.

### 11.1. Connecting Ethernet



- (1) Turn off power switch of MD3200M
- (2) Connect MD3200M to hub with Ethernet cable
- (3) Turn on power switch of MD3200M

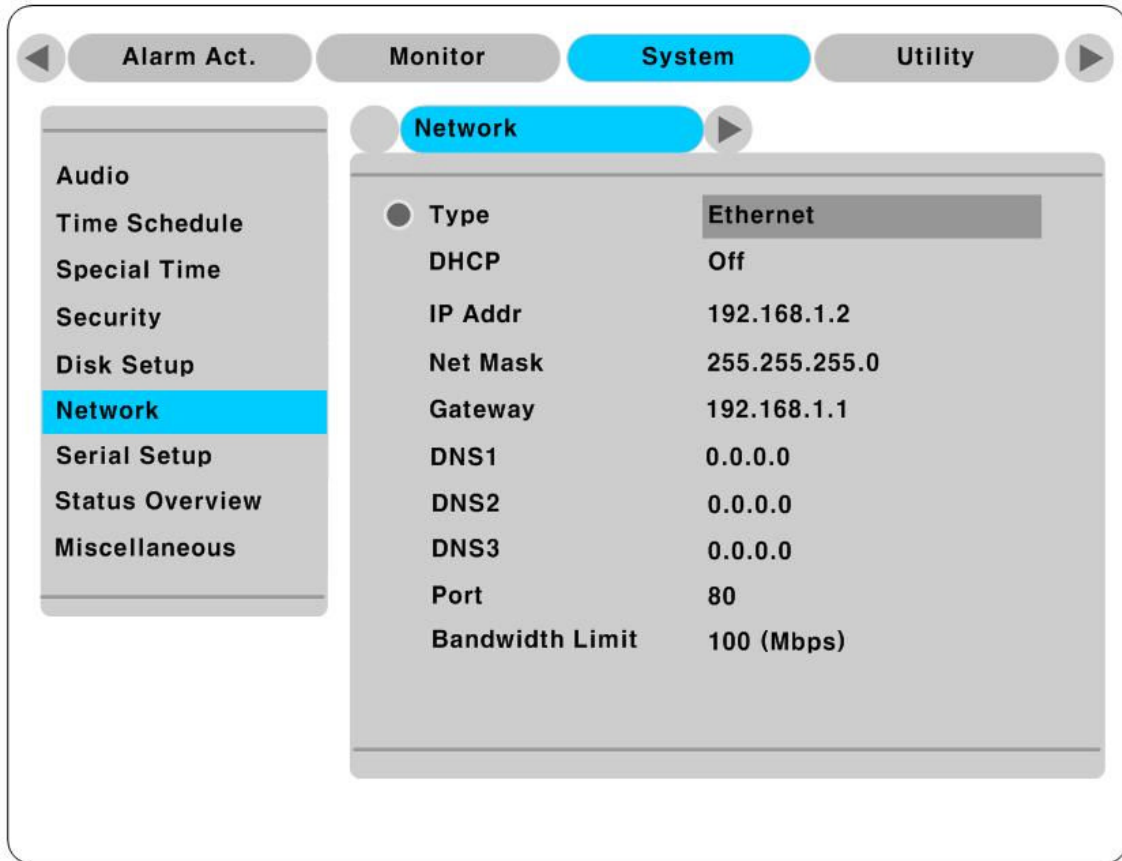
#### <Note>

1. Supply power to MD3200M after connecting Ethernet cable to protect against electrical damage to MD3200M.
2. Check cable connection status.
3. Check LED on rear panel of MD3200M after supplying power.



## 11.2. Configuring Network information of MD3200M

The following description is based on Ethernet connection. For more detailed information on the Network setting page and way of using xDSL, please refer "[eDVR USERS' GUIDE](#)".



- (1) Press [MENU] button
- (2) Select "System" using the [◀/▶] buttons and press the [▷] button.
- (3) Select "Network" using the [▲/▼] buttons and press the [▷] button.
- (4) Select "IP Addr" using the [▲/▼] and press the [▷] button.
- (5) Press [EXIT] button after entering IP address in the dialogue box.
- (6) Select "Net Mask" using the [▲/▼] buttons and press the [▷] button.
- (7) Press [EXIT] button after entering Net Mask in the dialogue box.
- (8) Select "Gateway" using the [▲/▼] and press the [▷] button.
- (9) Press [EXIT] button after entering Gateway in the dialogue box.
- (10) Select "DNS" using the [▲/▼] buttons and press [▷] button.
- (11) Press [EXIT] button after entering DNS in the dialogue box.
- (12) Press [EXIT] button to exit to monitor mode

## 12. Using Control Center Lite

Control Center Lite is a DVR Management Software and it makes DVR installation & setting more easier through a PC which is connected with DVR in Network. All configuration could be handled in OSD menu of DVR without a PC, however, Control Center Lite makes the complete setting more simply.

### 12.1. Starting

To do setting DVR through Control Center Lite, PC and DVR should be connected via Network and installed Control Center Lite on the PC.

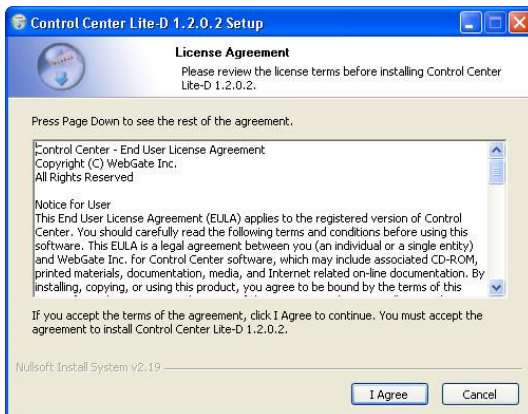
#### 12.1.1. PC system requirements for running Control Center Lite

	Minimum Requirements	Recommended Requirements
CPU	Intel Pentium4 3Ghz(Hyper-Thread)	Intel Core™ 2 Duo Processor
Memory	512MB	2GB
Video Card	128MB	128MB
Resolution	1280 x 1024	1280 x 1024
HDD recording space	1GB or higher	1GB or higher
OS	Windows XP SP2	Windows XP SP2
Etc.	DirectX 8.1 or higher	DirectX 8.1 or higher

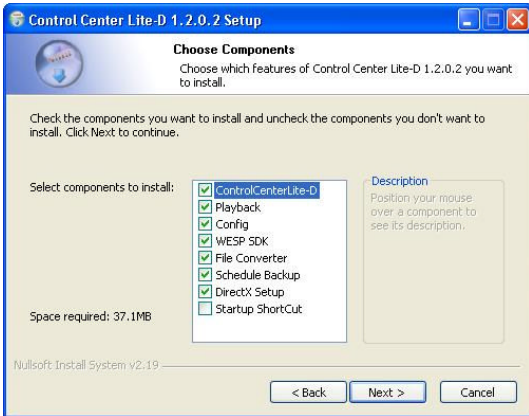
### 12.2. Installing Control Center Lite

1> Execute "1.x.x.x Setup.exe" file in Control Center Lite Set up CD.

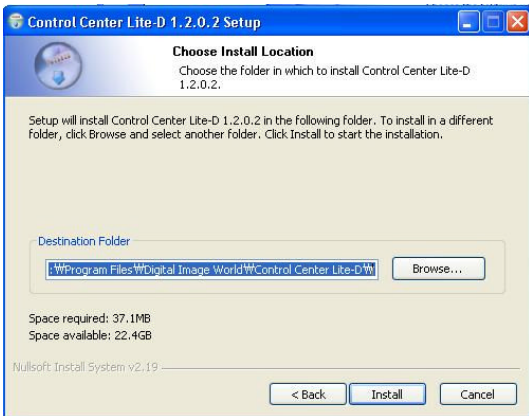
To install Control Center Lite, user level of the PC should be Administrator mode.



2> Click "I Agree" button to accept the license agreement



3> Select components which wish to install and press “Next” button.  
“WESP SDK” must be installed.



4>.Click the “Install” button after selecting a directory to be insatalled.

### 12.3. Log-In



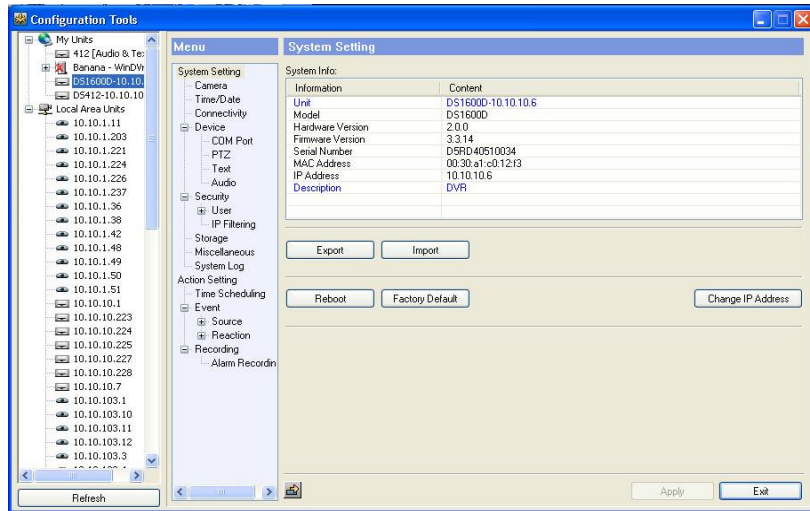
Enter User Name, Password and press “Ok” button.

The factory default value : User Name:Administrator, Password:admin

## 12.4. Configuration Tool



Click the icon on the desk top to run “Control Center Lite Configuration Tool”.

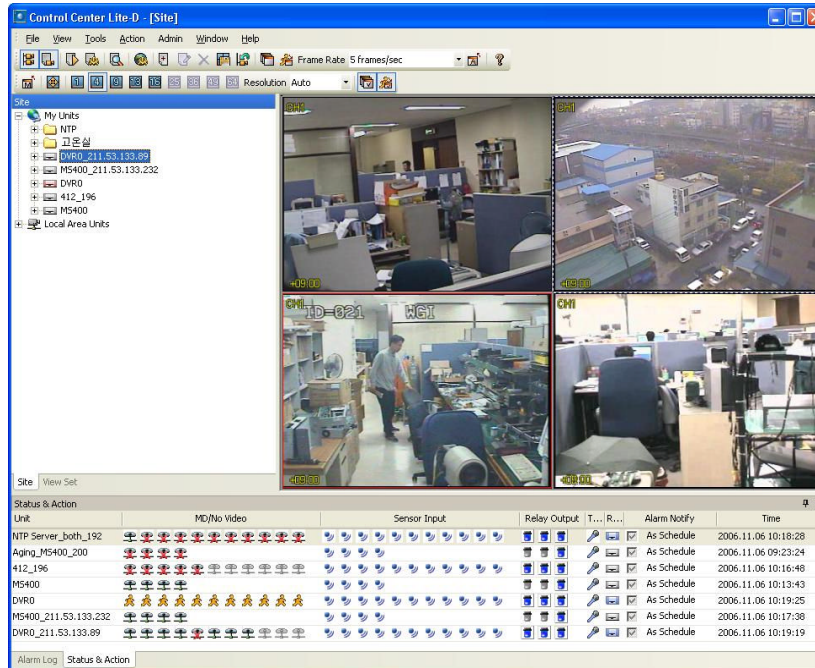


## 12.5. Monitor

\* Max. 5 users could be connected simultaneously in one unit of MD3200M.



Click the icon on the desk top to run “Control Center Lite Monitor”.

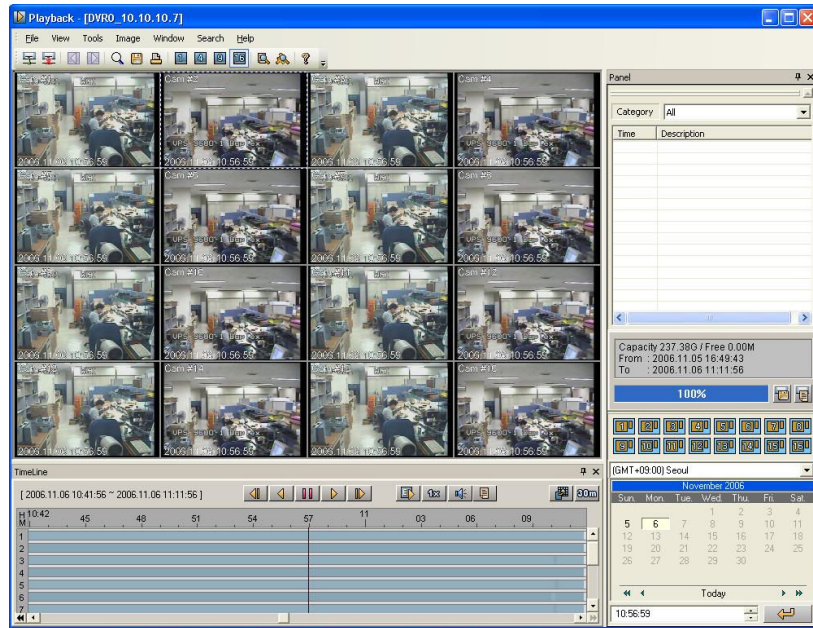


## 12.6. Playback

\* Max. 2 user could be connected for playback in one unit of MD3200M.



Click the icon on the desk top to run “Control Center Lite Playback”.

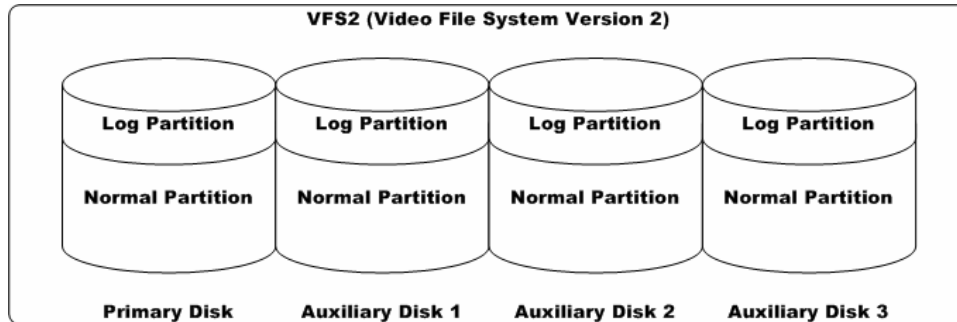


# APPENDIX

## #1. HDD

### #1.1. Fundamental notions & terms

eDVR storing constructure (VFS2)



eDVR series has a peculiar storing constructure, and its features are as follows.

- (1) It is possible to connect 2 sets of HDD internally (Internal, ATA Interface) and 63 sets of HDD externally (External, 2 ports of IEEE1394 / External, 2 ports of eSATA / Storage Network).
- (2) All of the connected HDDs are recognized as one virtual disk, and eDVR supports upto 8TB.

#### <Note>

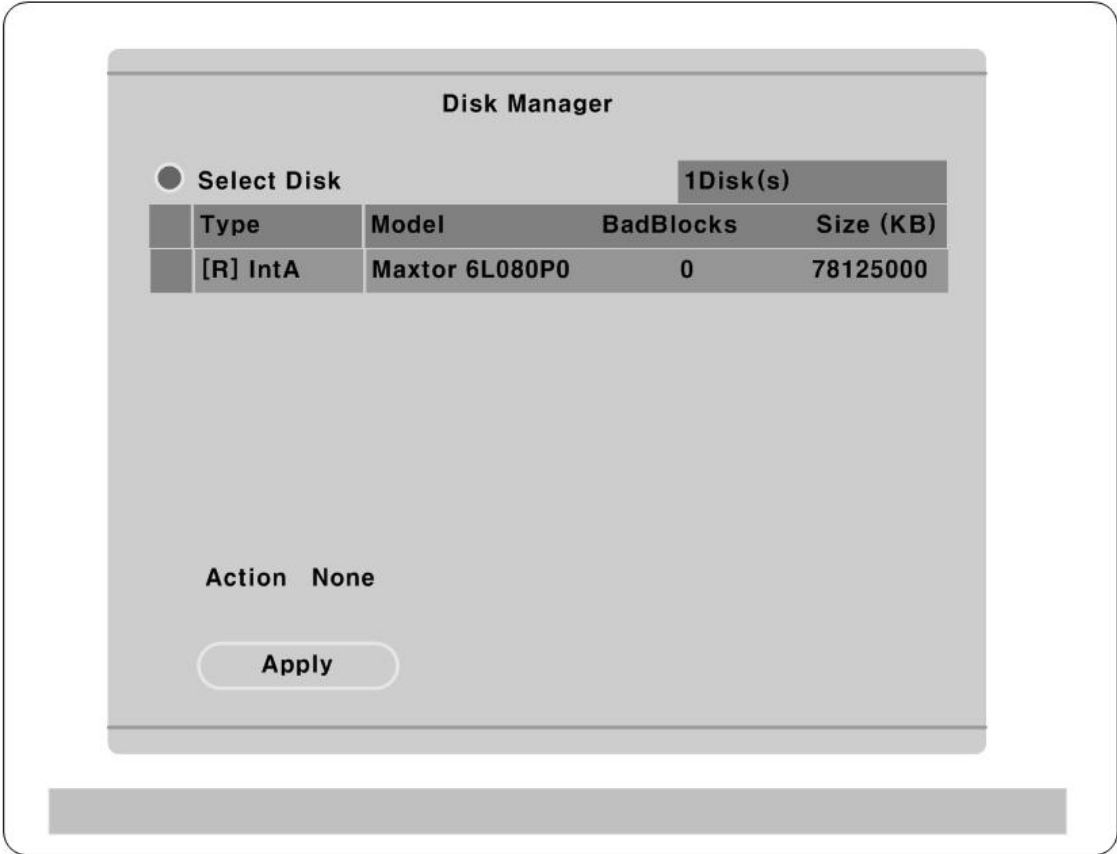
Log Partition	To store the information of recorded data
Normal Partition	To store the data as normal recording schedule

### Backup

- (1) Backup is possible only through (IEEE1394 port, eSATA, Storage Network) and HDD for backup should be formatted as FAT32 type. (Its type is indicated as [F] in Disk Manager.)

### Disk Manager

- (1) When HDD is added or deleted physically, Disk Manager runs automatically after rebooting. If not, you can run "Disk Manager" manually with moving "Menu→Utility→Disk Manager".





(2) HDD Type at Disk Manager

[R]	Available recording status
[V]	Connected and formatted as eDVR's file system. If using 'Add Used' command, it will be changed to [R]. There is no need to format.
[F]	Connected but not available eDVR's file system. After using 'Add', need to format for making as [R]. Indicate FAT32 file system connected for backup.
[C]	CD/DVD-Recorder
[X]	HDD cable is not connected nor has some problem. In case of that, HDD should be removed with using 'Confirm Removed' menu. In case of being [X] at the disk list, the buzzer will ring until closing a disk manager.
IntA	Internal Primary IDE Channel Master HDD
IntB	Internal Secondary IDE Channel Master HDD
Ext	External HDD, which can be reordered by the order of recognition

(3) HDD Managing Command

Add	Add a HDD for recording. In case of adding a disk, "Alarm Partition" menu is activated as an available status. "Alarm Partition" means that one HDD divides a partition as Normal Recording & Alarm Recording part.
Add Used	Add a HDD that has been used and formatted. There is no need to reformat. It is possible only when HDD is added as Primary Disk.
Remove	Remove current HDD. HDD can be reused without data loss by the 'Add Used' command.
Confirm Removed	Use when a removed HDD is still listed. ALL DATA WILL BE LOST!
FAT32 Format	: Use when connect to the external HDD Format the partition of below 250GB to copy/backup by FAT32 file system. It is necessary to create partition by using Disk manager on PC for this work. In case the size is over 250GB, format each partition by FAT32 file system after creating multiple partitions smaller than 250GB.

## #1.2. Installing HDD

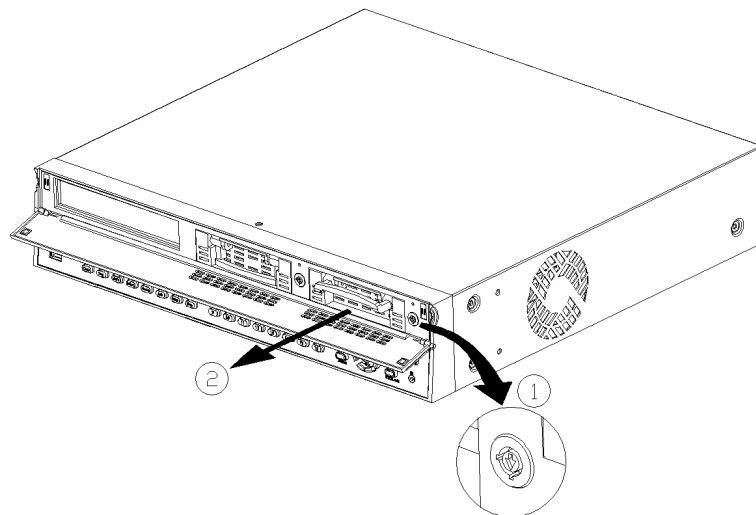
### Compatible HDD

It is recommended to use the following HDD models with the MD3200M. If a non-recommended HDD is used, WEBGATE Inc. will not guarantee the warranty.

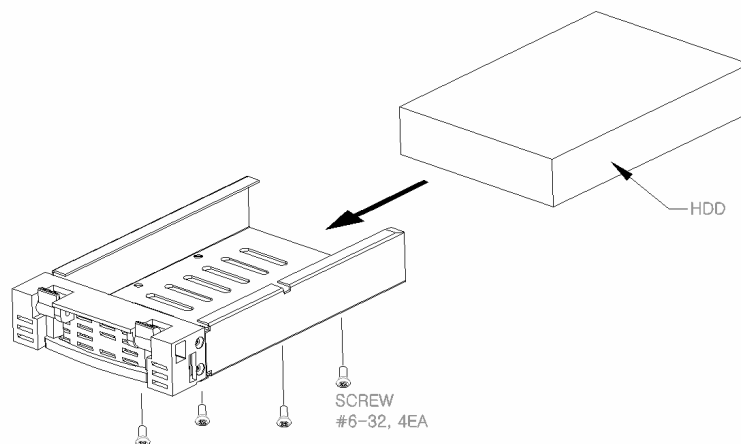
### Installation and extension of internal HDD-RACK HDD

In case of installation/adding or exchange HDD, follow the procedure as followings

- (1) Cut off the power to eDVR.
- (2) Release the Locking system using HDD-RACK KEY
- (3) Lift up the hand at front 90 degrees and pull Bracket to remove.



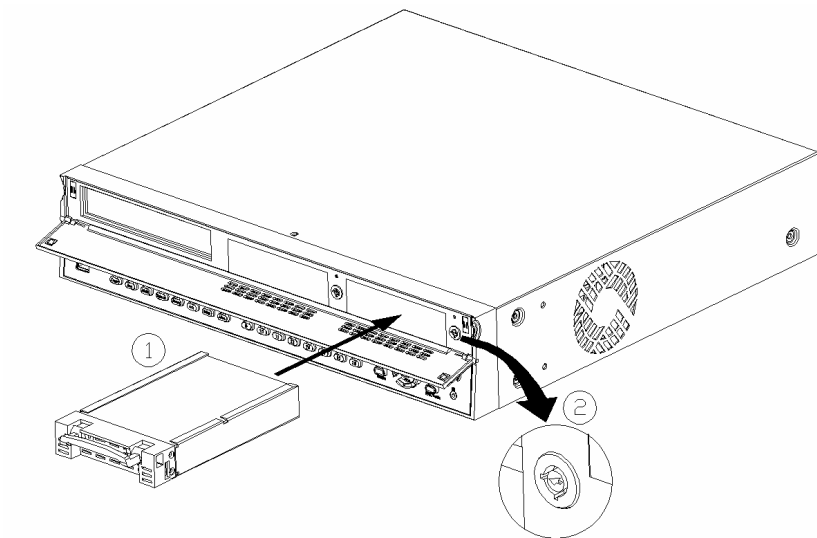
- (4) Fix HDD into HDD BRACKET using Screws included.



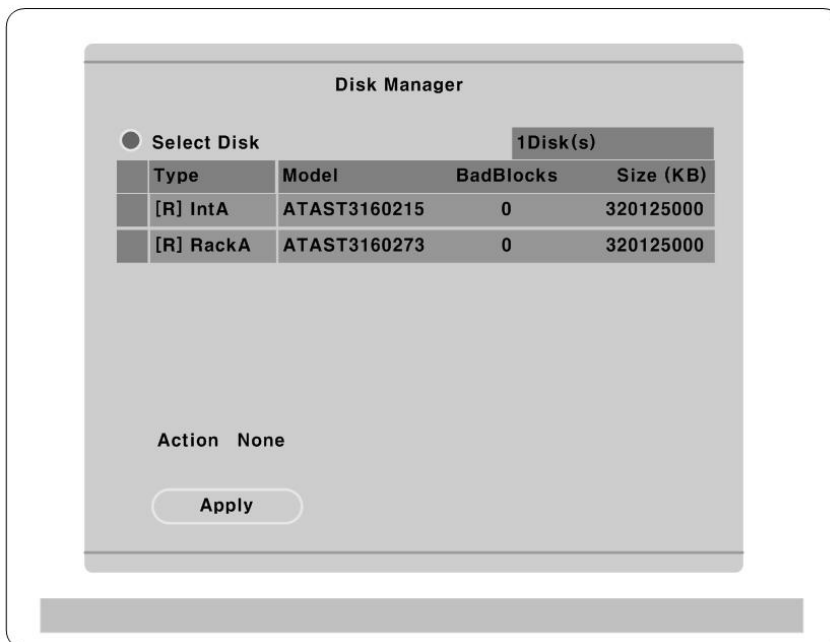
**<Note>**

When assemble HDD, the base of HDD should be HDD below.

- (5) After insertion of BRAKET that HDD installed to RACK, take the handle down to fix.
- (6) Rock HDD-RACK using KEY to complete installation



**When installing one primary disk**



- (1) When power is supplied to MD3200M, “Disk Manager” runs automatically after rebooting. If not, run it manually in “Menu→Utility→Disk Manager”.
- (2) There is a HDD that is indicated as “[F] IntA”. Select it.
- (3) Select “Action” as “Add”, configure a size of alarm partition, and press “Apply” button. Then [F] is changed to [R].
- (4) Press the [EXIT] button to shut down “Disk Manager”. (If recording schedule is set, MD3200M will start recording.)

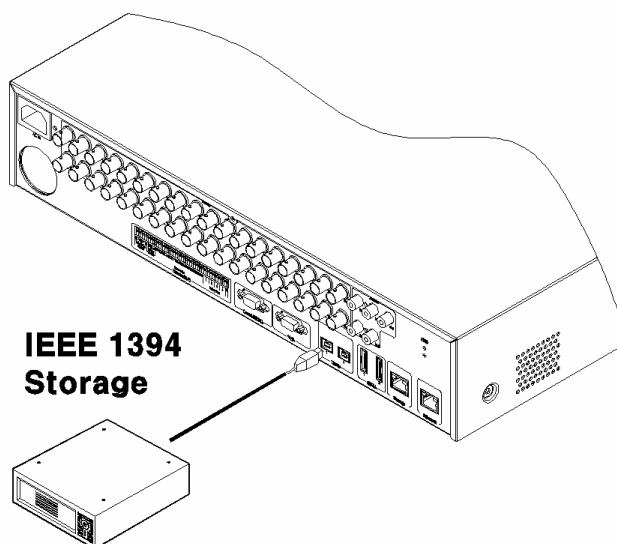
### **Expending External HDD (When using internal HDD as primary disk)**

MD3200M use IEEE1394, eSATA, NVS04 as external storage device interface, and has two ports (Front: 1port , Rear: 1port) of IEEE1394, eSATA, NVS04. MD3200M supports upto 8TB storage.

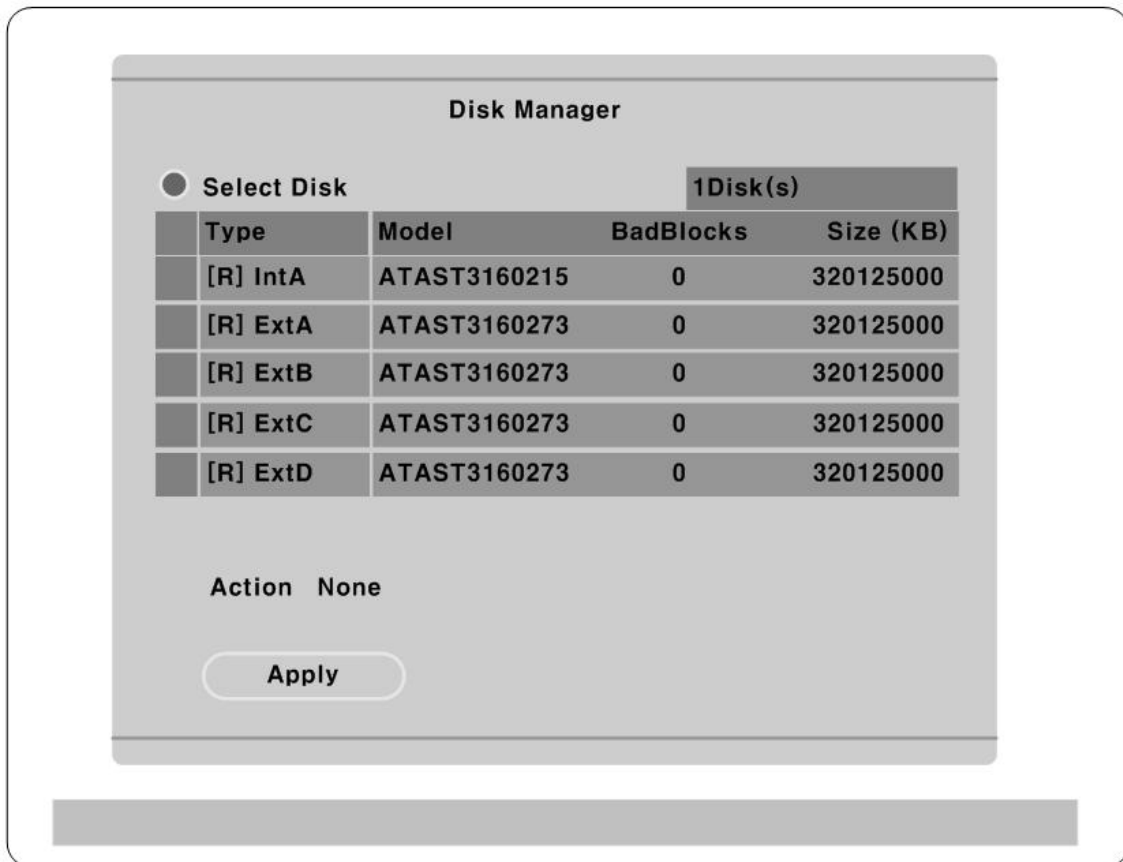
#### **<Note>**

1. Some IEEE1394, eSATA ports may not be recognized by the MD3200M. Before purchasing, consult the local WEBGATE distributor.
2. External storage should use external power.
3. For connection and setup of IEEE1394, eSATA, NVS04, please refer to the manual of related device.

Connect IEEE1394 interface cable as follows.



## When using Disk Farm



The following description is when MD3200M has internal primary disk and 3 sets of IEEE1394 HDD.

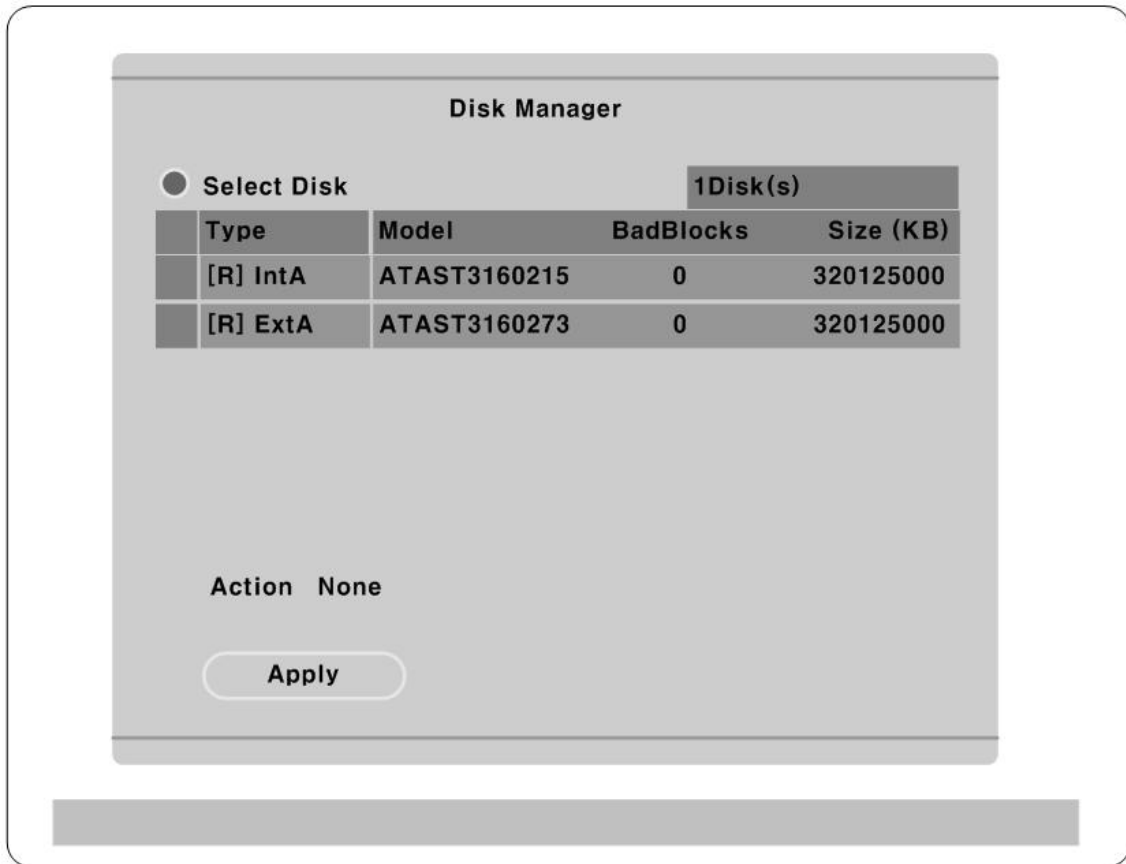
- (1) When external HDD farm is connected to IEEE1394 port, "Disk Manager" runs automatically. If not, run it manually in "Menu→Utility→Disk Manager".
- (2) Select a second HDD of [F] Ext. Press the "Apply" button after selecting action as "Add". Then [F] is changed to [R].

**<Note>**

If connecting the device that is used in MD3200M, type will be indicated as [V].

- (3) Select a third HDD of [F] Ext. Press the "Apply" button after selecting action as "Add". Then [F] is changed to [R].
- (4) Select a fourth HDD of [F] Ext. Press the "Apply" button after selecting action as "Add". Then [F] is changed to [R].
- (5) Press the [EXIT] button to shut down "Disk Manager".

## When using RAID



The following description is when MD3200M has internal primary disk and 1 set of IEEE1394 RAID.

### <Note RAID>

Even though several HDDs are connected to RAID, MD3200M will recognize them as only one HDD. For connection and setup of RAID, please refer to the manual of related device.

- (1) When external HDD RAID is connected to IEEE1394 port, "Disk Manager" runs automatically. If not, run it manually in "Menu→Utility→Disk Manager".
- (2) Select a second HDD of [F] Ext and configure a size of alarm partition. Press the "Apply" button after selecting action as "Add". Then [F] is changed to [R].

### <Note>

If connecting the device that is used in MD3200M, type will be indicated as [V].

- (3) Press the [EXIT] button to shut down "Disk Manager".

## Replacing HDD

### Checking HDD

MD3200M file system (VFS2) sensors bad sector automatically, and the sensed bad sector is not used.

The following means when HDD is broken or has some problem in connection.

- (1) When playback is stopped or MD3200M is rebooted in specific playback range or image searching per event is impossible.
- (2) When recording is stopped and “Disk Manager” shows HDD type as [X].

### When disk is broken

In case of not reading or writing a disk comes from physical error or occurring a bad sector at the beginning of a disk, it is decided as a disk error.

In case of being other disk inside eDVR or able to storage a data, it is recorded at the next disk.

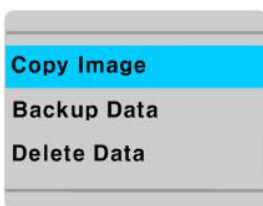
Simultaneously, it notifies bad disk marked as [X] to a user popping up eDVR disk manager.

### Keeping Data

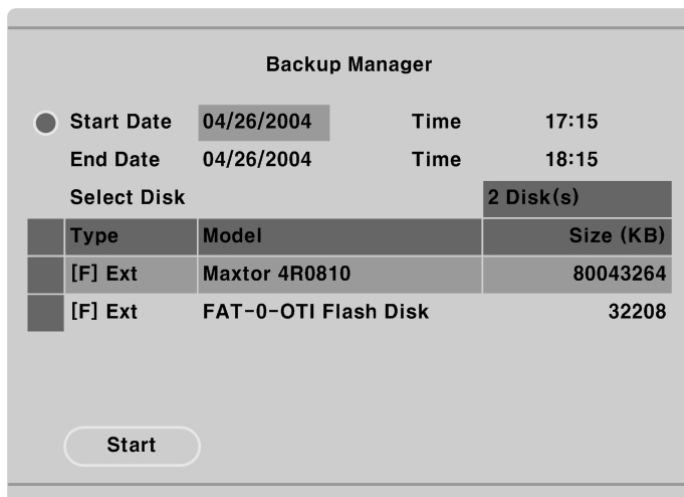
To keep the stored data by the fixed time or semi permanently, you should back up or reserve as HDD itself.

### Backup

- (1) Connect backup HDD to IEEE1394 port.
- (2) Go to playback mode with pressing the [Playback] button.
- (3) Press the [SELECT] button and then [MENU] button.



- (4) Run “Backup Manager” with selecting the “Backup Data” menu.



(5) Set backup range and press the “Start” button after selecting backup HDD.

**<Note>**

1. Backup HDD should be formatted as FAT32 type.
2. Backup data can be replayed with specific S/W in PC such as Control Center Lite-D or MiniPlayer.
3. Backup data is made as “\*.re4” file and recognized as CD-R 700MB / DVD-R 4G per each file.
4. Support CD-R backup and should be over CD-R 700MB / DVD-R 4G media.
5. In course of backup, “Auto Delete” function doesn’t run. If HDD is full, recording may be stopped instantly.
6. For more detailed information of Control Center Lite-D’s backup, please refer to the “eDVR User’s Guide”.



### **Caution in using HDD**

For handling or guaranteeing HDD, WEBGATE follows HDD guaranty condition. WEBGATE doesn't bear the responsibility about data loss by user's mistake in operating.

**<Note>**

**Attention for the system without HDD installed**

In case of system without HDD, HDD only can only be installed in R-HDD(Removable Hard disk rack).

For the internal installation of HDD additionally, For the details, please contact to local distributor.

**<Note>**

It supports only DVD backup. CD backup will be supported later.

For the details, please contact to local distributor.

**<Note>**

**Attention for the system HDD-Rack**

It is essentially required to use locking the RACK KEY after HDD rack installation.

It is not allowed to add HDD in Disk Manager without locking the RACK KEY.

HDD in HDD Rack could be removed or installed without power off eDVR.

It is available to use correspondent HDD in Disk Manager after installing HDD-RACK and locking the HDD-RACK during eDVR operation.

## #2. Using CD-ROM

### Components of CD-ROM disc

Installation Guide	: eDVR MD3200M Installation Guide
User's Guide	: eDVR MD3200M User's Guide
Control Center Lite-D	: Control Center Lite-D User's Guide (Control Center lite-D Remote Management Program)
Acrobat Reader	: Version 7.0

### Preparation

To read manual of CD-ROM disc, Adobe Acrobat 7.0 should be installed in client's PC.

#### <Note>

If Adobe Acrobat Reader is not installed within client's PC, use the Acrobat Reader program of CD-ROM.

### Reading manual of CD-ROM

Follow the steps to read User's Guide.

- (1) Insert the supplied CD-ROM into CD-ROM drive of PC.
- (2) Open the User's Guide with PDF file.

### #3. How to recognize manufacturing date

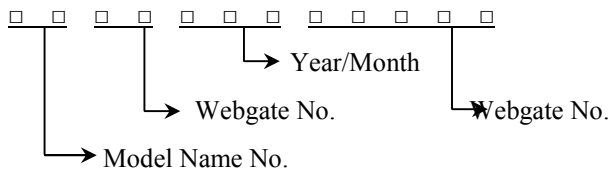
The manufacturing date by Webgate can be recognized by S/N(Serial Number) attached at the each product.

#### S/N : Serial Number

Management number for each Webgate product to combine twelve alphabet character and digit including model name, manufacturing year/month/week

You can see serial number by looking at the bottom of product attached label and system info of Configuration Tool.

#### Serial Number Format



- (1) 1~2 digits : Identify Model name of product
- (2) 3~8, 8~12 digits : Webgate internal number
- (3) 5~6 digits : Manufacturing year
- (4) 7 digits: Manufacturing month

Please see the below table for manufacturing month.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2	3	4	5	6	7	8	9	A	B	C

#### The example of verifying manufacturing date using serial number

The below S/N can be verified as following as:

「 **D60507B22051** 」

- (1) “D6” means “MD3200M” product
- (2) “07B” means that it was manufactured on November of 2007

## #4. Specification

### General

<b>CPU</b>	32bit RISC Processor
<b>Flash memory</b>	32MB
<b>Main memory</b>	256MB
<b>OS</b>	Embedded LINUX
<b>Video channel</b>	32Ch. analog video inputs via BNC connector NTSC or PAL video format are supported (Auto detect)
<b>Storage device</b>	Int.: 4 HDD bays including 2 hot swap-bay Ext: 2 IEEE 1394b (FireWire) connection ports* 2 eSATA connection ports 1 Network Storage port (RJ45)* Supports Disk management tool for all disks. Total manageable capacity: 8 TB
<b>Intelligent file system</b>	Data-loss protection against power failure

\* under development

### Image compression and Recording

<b>Technology</b>	MPEG-4, JPEG(Remote monitoring only)
<b>Image quality level</b>	5 Level (Q1 ~ Q5)
<b>Recording speed</b>	Max. 480ips(NTSC) / 400ips(PAL) @ D1 Resolution
<b>monitor (Playback speed)</b>	Total 60ips(NTSC)/50ips(PAL)
<b>(Performance)</b>	1/4/9/16ch 1x, 2x, 4x, 8x, 16x, 32x, 64x (Forward/Reverse playback)
<b>Resolution</b>	CIF : 352 x 240 / 352 x 288 Half D1 : 704 x 240 / 704 x 288 D1 : 704 x 480 / 704 x 576
<b>Motion Detection Grid</b>	22x15(NTSC)/22x18(PAL)
<b>Playback search</b>	Instant Playback by time and event Step-forward, Step-reverse playback
<b>Alarm trigger</b>	Motion detection, Sensor input or Text input
<b>Alarm log record</b>	Log search Log monitoring via OSD & Network
<b>Pre/Post alarm</b>	Pre : 0~5 seconds Post : 0~60 seconds

<b>Schedule recording</b>	Daily : Day / Night / Four-segment time frame Weekly : Weekdays / Weekends, Exception days Conditions : Normal / Event
<b>Text Data recording</b>	POS/ATM transaction information archived along with corresponding video data
<b>Manual recording</b>	Manual(Emergency) record triggered by font key
<b>Audio Recording &amp; Playback</b>	
<b>Recording level</b>	-7~8 (16 step) recording level
<b>Monitoring</b>	Support remote monitoring and two way audio
<b>Network</b>	
<b>Program</b>	Control Center Lite-D (Bundle) Support Control Center series CMS S/W and WESP SDK
<b>Protocol</b>	TCP/IP, ARP, ICMP, DHCP, PPPoE
<b>Connection 1</b>	10/100Mbps Ethernet (RJ-45)
<b>Connection 2</b>	10/100/1000 Gigabit Ethernet for storage expansion
<b>S/W upgrade</b>	Firmware upgrade via Network and USB
<b>Simultaneous users</b>	Monitoring : Max. 5 users Playback : Max. 2 users
<b>Security</b>	Password (User or Administrator authentication)
<b>Monitor Output</b>	
<b>Monitor 1</b>	Max. 960 field/sec 1ch, 4ch, 9ch, 16ch , Auto & User Defined Sequence 1 CVBS and 1 VGA output True color OSD
<b>Monitor 2~4</b>	Max. 960 field/sec 1ch, 4ch, 9ch, 16ch , Auto & User Defined Sequence 1 CVBS output True color OSD
<b>Alarm Pup-up</b>	Triggered by recording event
<b>Digital zoom</b>	2x (Live mode)
<b>Environment</b>	
<b>Operation temperature</b>	5 ~ 45℃

<b>Storage temperature</b>	-10 ~ 55℃
<b>Operation humidity</b>	30~80%, free of condensation
<b>Storage humidity</b>	93% below, free of condensation

### **Data Backup/Expansion/Copy**

<b>Data backup</b>	External HDD(via 1394b or eSATA) Internal CD-R/DVD-R
<b>Backup reminder</b>	5~ 95% alarm
<b>AVI Copy</b>	External USB memory disk(USB 1.1 compatible) on USB port

### **Input/Output**

<b>Video Output</b>	4 CVBS main monitor 1 VGA
<b>Audio</b>	4 Input : Line-in, 1 Vpp 1 Output : Line-out, 1Vpp
<b>Buzzer</b>	Software-controlled 1 internal buzzer
<b>Digital output</b>	Software-controlled 4 relay outputs(Max 125VAC/60VDC)
<b>Digital output schedule</b>	Daily : Day / Night / Four-segment time frame Weekly : Weekdays / Weekends Conditions : MD, Sensor, Text inputs
<b>Sensor input</b>	Software-controlled 16 sensor inputs (Support dry contact)
<b>Serial port</b>	RS232(2),RS485(2)

### **PTZ control**

<b>Control method (local)</b>	Front panel button & IR remote controller
<b>Control method (remote)</b>	On-the-screen PTZ control on PC Return home position support
<b>Preset mode</b>	16 points preset per channel 16 auxiliary function

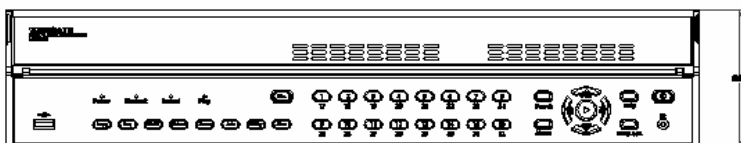
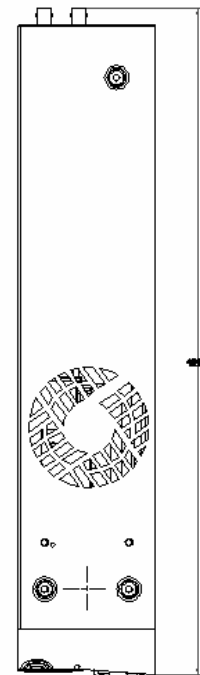
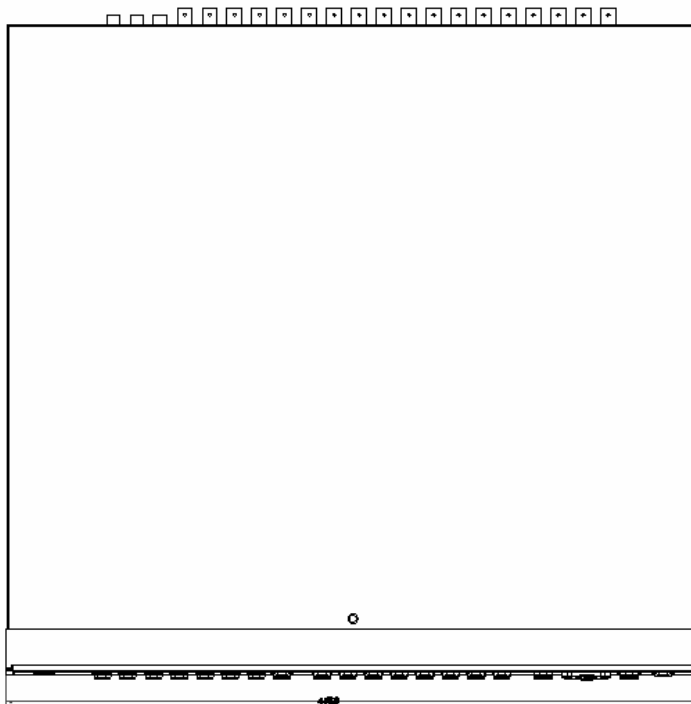
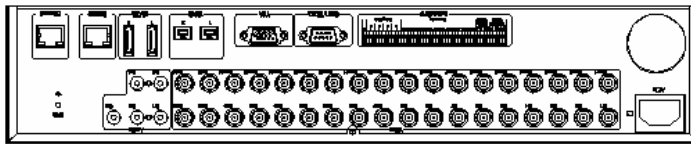
### **Electricity**

<b>Power (applied adaptor)</b>	AC free volt (100~240VAC)
<b>Power consumption</b>	Max. 85W Typical 60W

## Mechanical

**Dimension (W x D x H)** 430.0 x 362.0 x 88.0 mm

**Weight** 5.5 kg (with one HDD)



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The contents of this manual can be modified in accordance with Firmware or Software upgrade. In the interest of continually improving products, approval & outlook can be modified without prior notice